

HESSTON[®]

PARTS CATALOG

NEW PRINTING

Model 228 Oil Pumping Unit

Form No. 700 700 042
(02/1986 Edition)

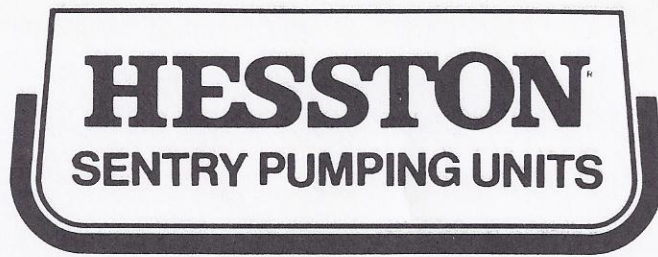
Original
Issue Date 10/1981

New Printing

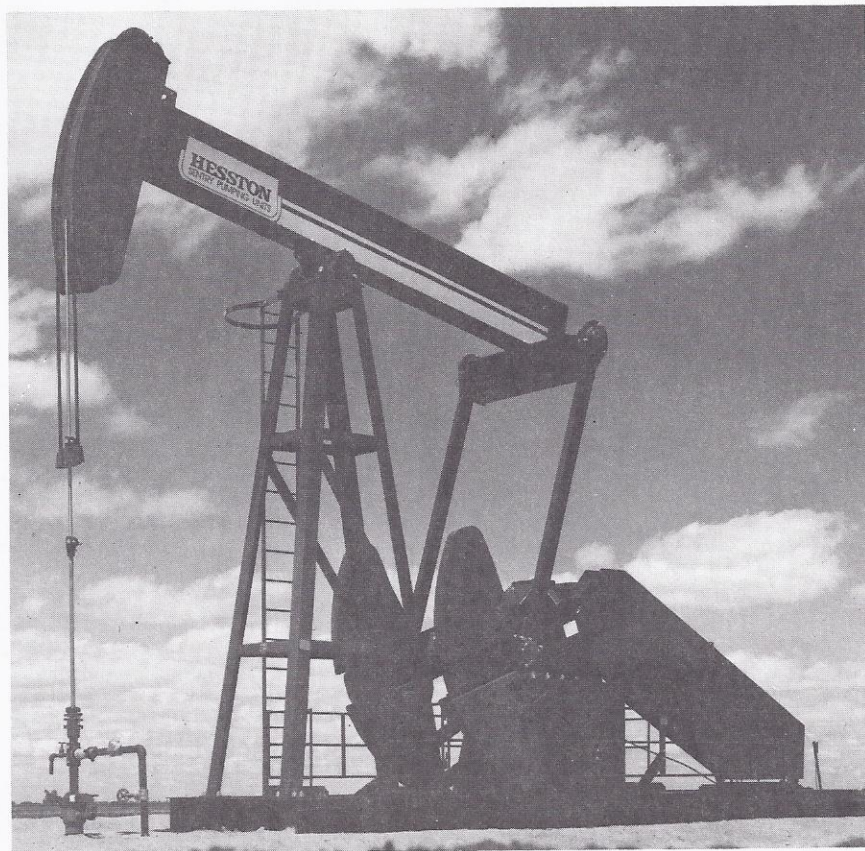
Dated 02/1986

The attached catalog is a new edition of the parts catalog for the model and form number shown above.

Upon receipt, remove the catalog you have on file and replace it with this catalog. Failure to do so could lead to confusion when ordering parts.



Model 228 PUMPING UNIT



PARTS CATALOG

02/1986

FORM NO. 700 700 042

THIS REPLACES THE 10/1981 AND 08/1983 EDITIONS OF MANUAL
NUMBERED 700 700 042.

MANUFACTURED BY



GENERAL INFORMATION

This book is printed in two sections. The first section contains a current page listing, an alphabetized table of contents, and a numerical index with location of all part numbers included in this catalog.

The second section includes a part number listing, referenced to item numbers on the illustrated pages. All pages will carry the machine model number (#) to assist in identifying the machine to which the parts catalog applies. All pages will carry the issue number and date.

When changes to the machine make it necessary, revised pages for this catalog will be issued. The revised pages will be issued with the same page numbers as those they replace and the "issue" number and date will be advanced.

Whenever a page of this catalog is re-issued, the "current page listing" will also be re-issued. This listing will show the issue number and date of issue of each page as a check sheet covering the entire catalog. It is imperative that revised parts catalog pages be inserted into their respective locations as soon as received. Failure to do so will lead to confusion when ordering parts.

SYMBOLS INDICATING SERIAL NUMBER EFFECTIVITY

- A black square in front of a part number indicates that the existing stock should be used prior to ordering the superseded part number listed below it.

Examples in Parts Listing (with or without Serial Number)

□ 6278090 (S/N PGI-001 thru -200)
□ 7326972 (S/N PGI-201 and on.)

This usage indicates a design change in which the parts are not interchangeable.

■ 730020 (S/N PGI-001 thru -932)
□ 840101 (S/N PGI-933 and on.)

This usage indicates that the second part interchanges with the first part but that the second part must be stocked for its respective effectivity.

■ 079323 (S/N PGI-001 thru -600)
□ 079498 (S/N PGI-601 thru -680)
□ 808832 (S/N PGI-681 and on.)

This usage indicates that the second part interchanges with the first part but that the second part and the third part must be stocked for their respective effectivities.

NOTE: Supersedence and interchangeability cannot always be indicated in the illustration by (■) black square or (□) bracket — be sure to check Serial Number effectivity and substitution of single or related parts in the Parts Listing.

REPLACEMENT HARDWARE

Grade 5 plated hex bolts, hex cap screws and round head square neck bolts are standard on all Hesston equipment unless specified otherwise in the Illustrated Parts List. The use of any improper grade of hardware can result in the unanticipated failure of the hardware or related structures, and may cause personal injury, damage to the equipment, or loss of property.

HESSTON ASSURES YOU THE LATEST

You may note an occasional difference between the illustration and an actual part received on your machine or as a replacement. This means you are getting the benefit of a new design improvement made after the release of this manual.

SERIAL NUMBER IDENTIFICATION

To determine the correct part for your unit, it will be necessary to check the serial number. Serial Number plates are located on the front of Samson post and rear of gear reduction Box. This Manual covers pumping units with Serial Numbers beginning with:

P228-0001 and Later



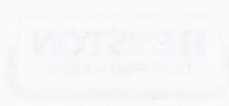
CURRENT PAGE LISTING

Model **OIL PUMPER 228**

Form No. **700 700 042 (02/1986 EDITION)**

The listing below reflects all the current pages and revisions to this manual. Upon receipt of a revision, insert the new pages and destroy the old pages. An asterisk (*) indicates pages revised, added or deleted by the current revision.

Page	Rev. No.	Issue Date	Page	Rev. No.	Issue Date
Cover	New	02/1986			
	Printing				
	(Replaces 08/1983 Edition)				
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1-27	Orig.	02/1986			



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HARDWARE LEGEND

H	Hex Nut
C	Cap Screw
FTC	Full Thread Cap Screw
HWHCS	Hex Washer Head Cap Screw
HFLCS	Hex Flange Lock Cap Screw
STCS	Self Tapping Cap Screw
NFC	National Fine Cap Screw
RHSNB	Round Head Square Neck Bolt
FHMS	Flat Head Machine Screw
HWHMS	Hex Washer Head Machine Screw
PHMS	Pan Head Machine Screw
CRRHMS	Cross Recess Round Head Machine Screw
RHMS	Round Head Machine Screw
CRTHMS	Cross Recess Truss Head Machine Screw
STHMS	Slotted Truss Head Machine Screw
CPSQHSS	Cup Point Square Head Set Screw
SRHMS	Slotted Round Head Machine Screw
HSSS	Hex Socket Head Screw
HTLN	Hex Top Lock Nut
HCLN	Hex Center Lock Nut
HFSS	Hex Flange Serrated Screw
SQHSS	Square Head Set Screw
SSS	Socket Set Screw
P	Wide Plain Washer
L	Helical Spring Lock Washer
J	Hex Jam Nut
HFSLN	Hex Flange Serrated Lock Nut
CP	Cotter Pin
NPTF	National Pipe Taper Fuel
NPSM	National Pipe Straight Mechanical
JIC	37° Tapered Thread
AR	As Required

HESSTON PAINT

700 704 610	Spray Can Paint, White Cascade
8 845 018	Spray Can Paint, Charolais White
8 845 000	Spray Can Paint, Autumn Prime
8 745 770	Spray Can Paint, Midnight Brown

ALPHABETICAL INDEX

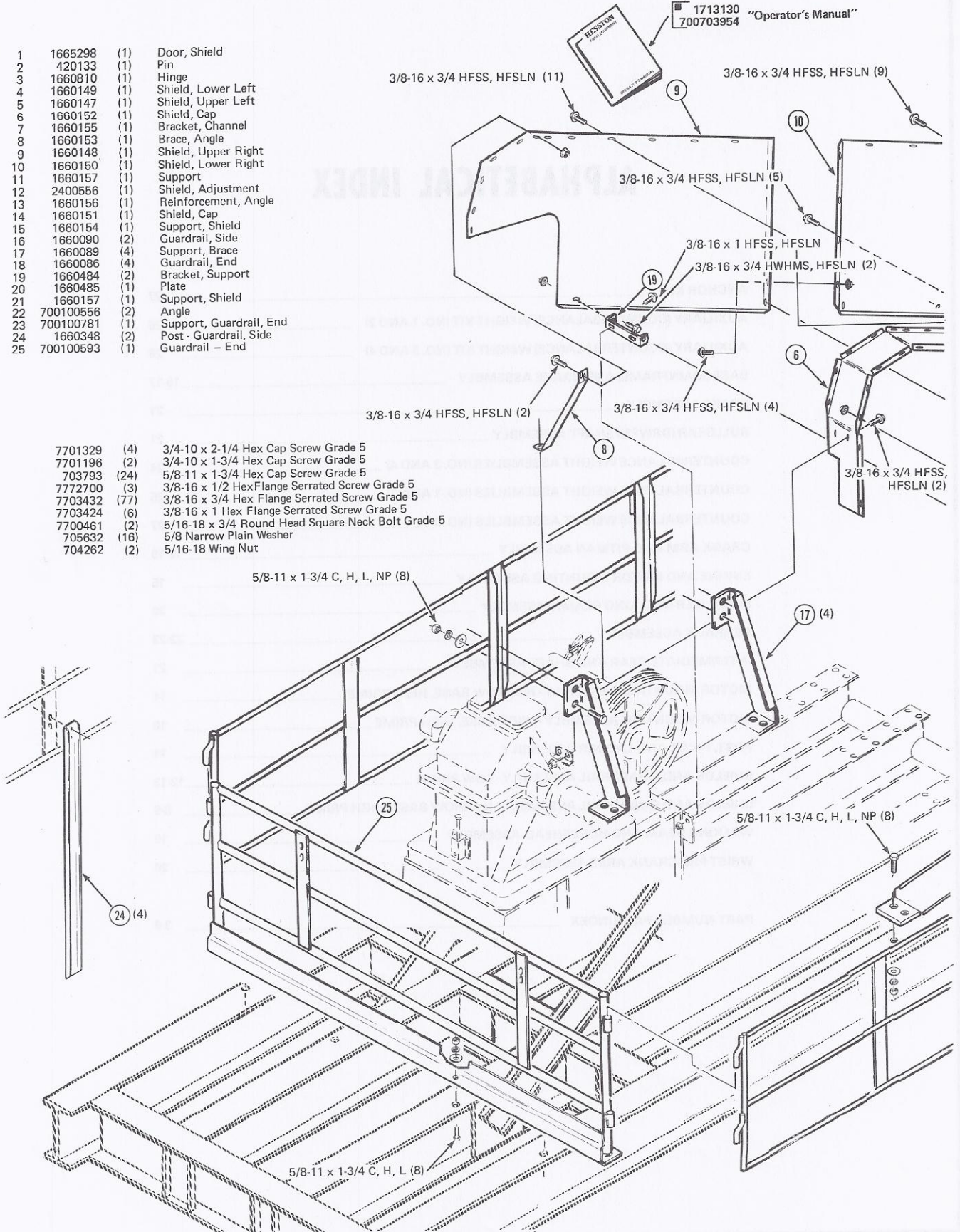
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SHIELD AND GUARDRAIL ASSEMBLY - LOW PRIME

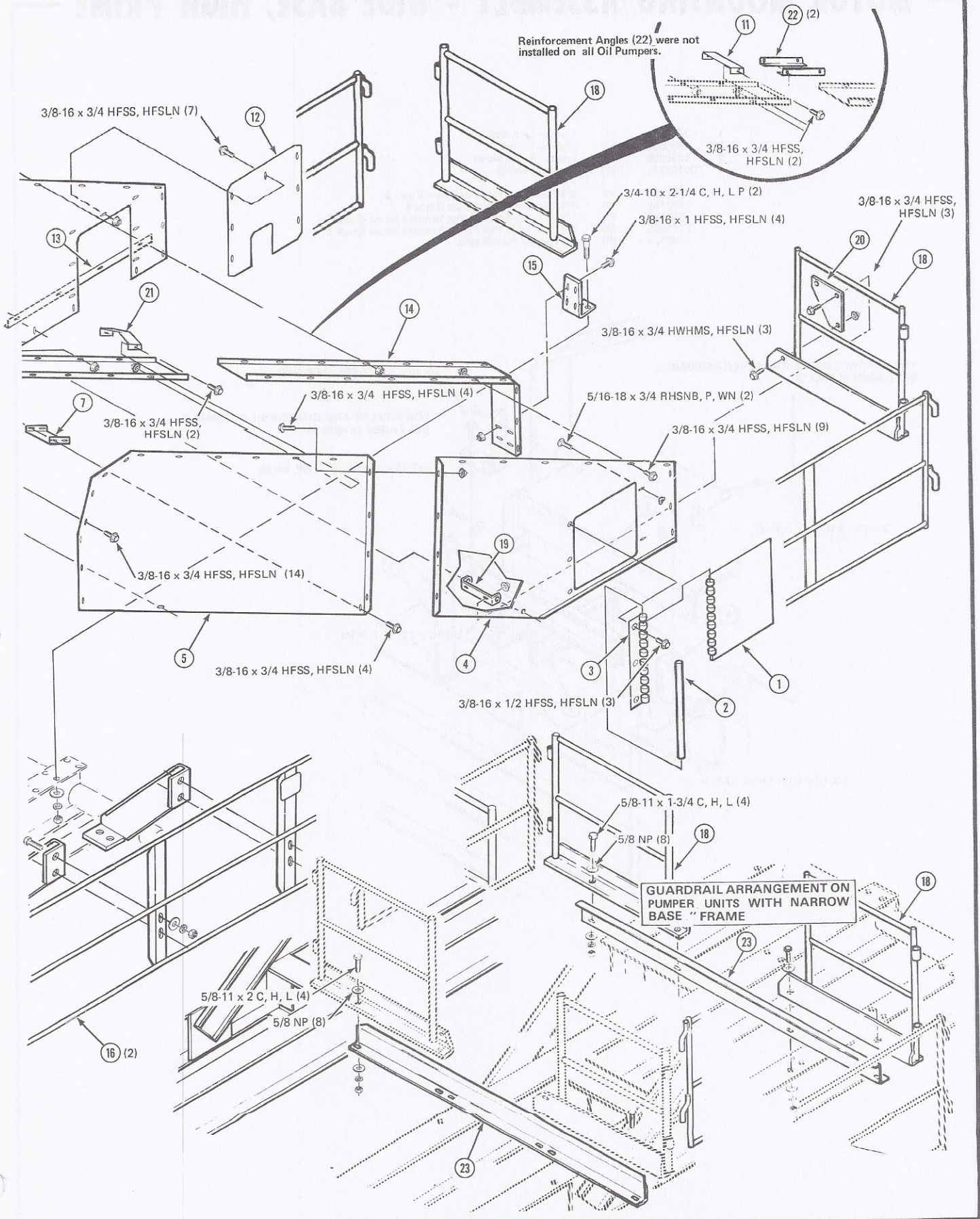
1713130 "Operator's Manual"
700703954

- 1 1665298 (1) Door, Shield
- 2 420133 (1) Pin
- 3 1660810 (1) Hinge
- 4 1660149 (1) Shield, Lower Left
- 5 1660147 (1) Shield, Upper Left
- 6 1660152 (1) Shield, Cap
- 7 1660155 (1) Bracket, Channel
- 8 1660153 (1) Brace, Angle
- 9 1660148 (1) Shield, Upper Right
- 10 1660150 (1) Shield, Lower Right
- 11 1660157 (1) Support
- 12 2400556 (1) Shield, Adjustment
- 13 1660156 (1) Reinforcement, Angle
- 14 1660151 (1) Shield, Cap
- 15 1660154 (1) Support, Shield
- 16 1660090 (2) Guardrail, Side
- 17 1660089 (4) Support, Brace
- 18 1660086 (4) Guardrail, End
- 19 1660484 (2) Bracket, Support
- 20 1660485 (1) Plate
- 21 1660157 (1) Support, Shield
- 22 700100556 (2) Angle
- 23 700100781 (1) Support, Guardrail, End
- 24 1660348 (2) Post - Guardrail, Side
- 25 700100593 (1) Guardrail - End

- 7701329 (4) 3/4-10 x 2-1/4 Hex Cap Screw Grade 5
- 7701196 (2) 3/4-10 x 1-3/4 Hex Cap Screw Grade 5
- 703793 (24) 5/8-11 x 1-3/4 Hex Cap Screw Grade 5
- 7772700 (3) 3/8-16 x 1/2 Hex Flange Serrated Screw Grade 5
- 7703432 (77) 3/8-16 x 3/4 Hex Flange Serrated Screw Grade 5
- 7703424 (6) 3/8-16 x 1 Hex Flange Serrated Screw Grade 5
- 7700461 (2) 5/16-18 x 3/4 Round Head Square Neck Bolt Grade 5
- 705632 (16) 5/8 Narrow Plain Washer
- 704262 (2) 5/16-18 Wing Nut



Reinforcement Angles (22) were not installed on all Oil Pumps.



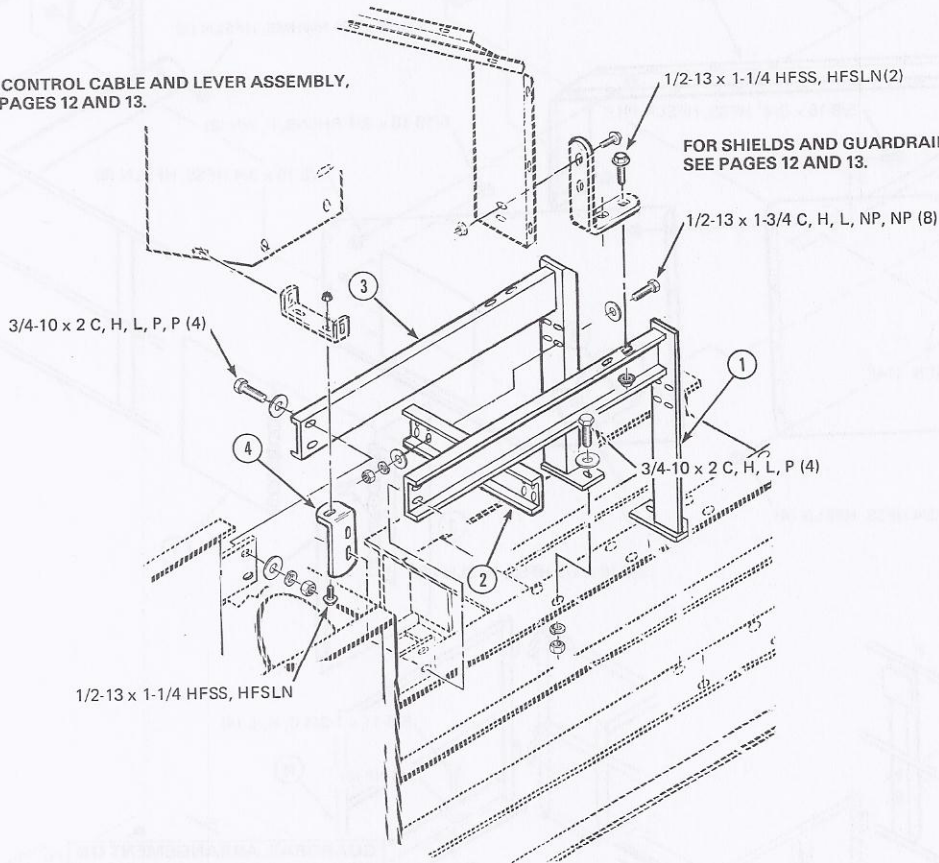
GUARDRAIL ARRANGEMENT ON PUMPER UNITS WITH NARROW BASE "FRAME"

MOTOR MOUNTING ASSEMBLY - WIDE BASE, HIGH PRIME

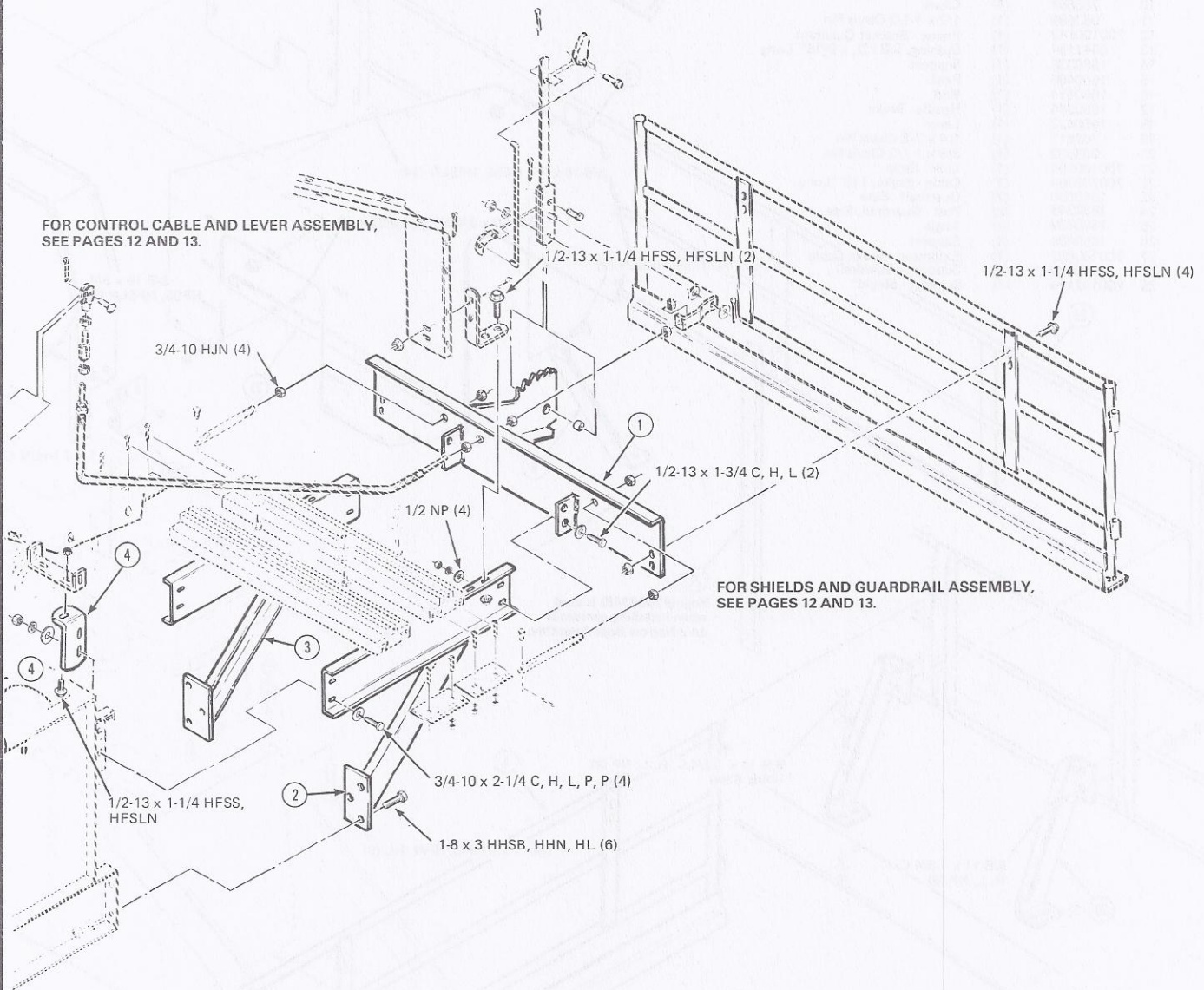
1	1660321	(1)	Frame - Left, Motor
2	1660329	(1)	Channel - Cross
3	1660326	(1)	Frame - Right, Motor
4	700102581	(1)	Support - Shield
	7701329	(4)	3/4-10 x 2-1/4 Hex Cap Screw Grade 5
	7702160	(4)	3/4-10 x 2 Hex Cap Screw Grade 5
	703983	(8)	1/2-13 x 1-1/4 Hex Flange Serrated Screw Grade 5
	7771363	(3)	1/2-13 x 1-1/4 Hex Flange Serrated Screw Grade 5
	705624	(16)	1/2 Narrow Plain Washer

FOR CONTROL CABLE AND LEVER ASSEMBLY,
SEE PAGES 12 AND 13.

FOR SHIELDS AND GUARDRAIL ASSEMBLY,
SEE PAGES 12 AND 13.



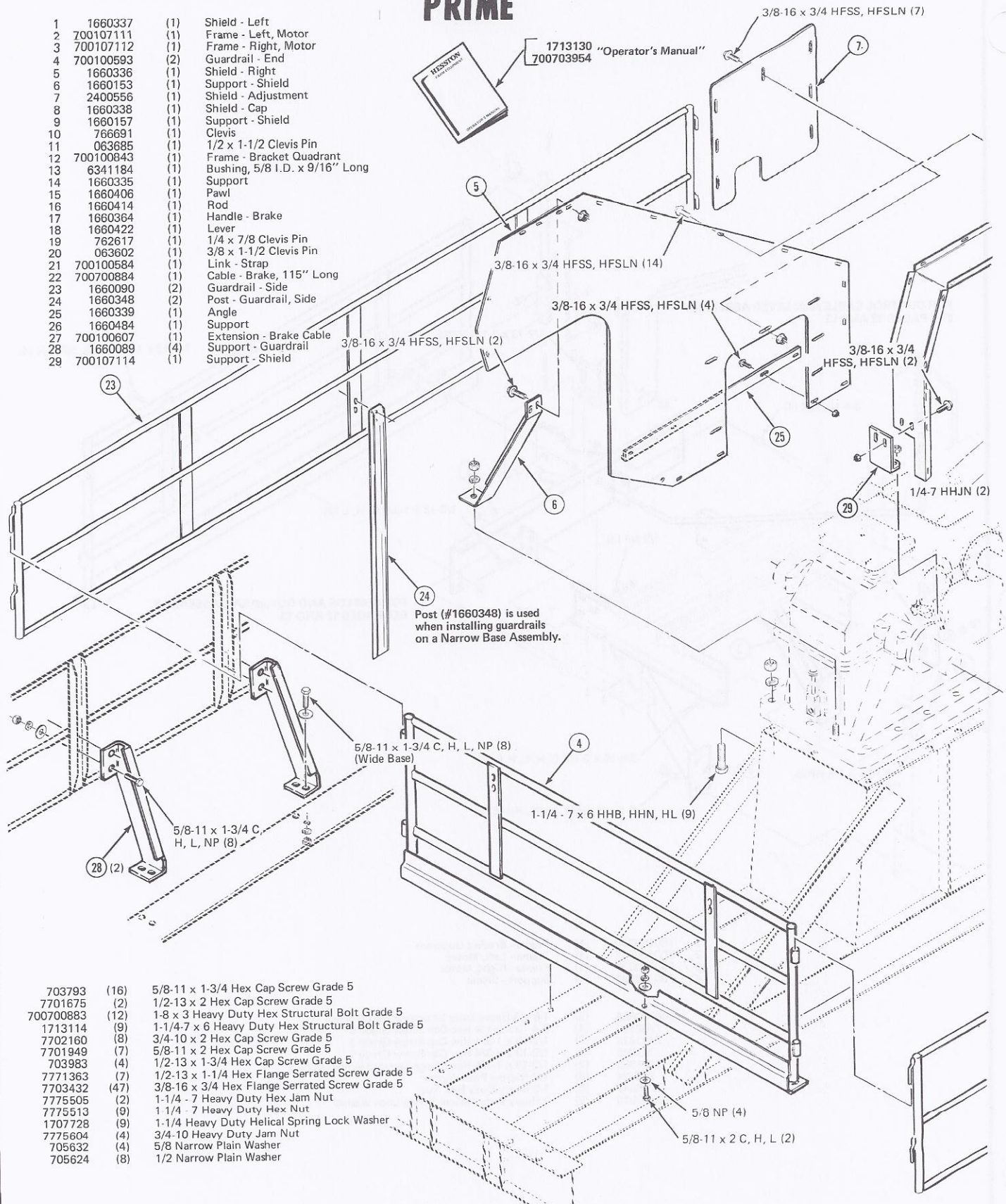
MOTOR MOUNTING ASSEMBLY - NARROW BASE, HIGH PRIME



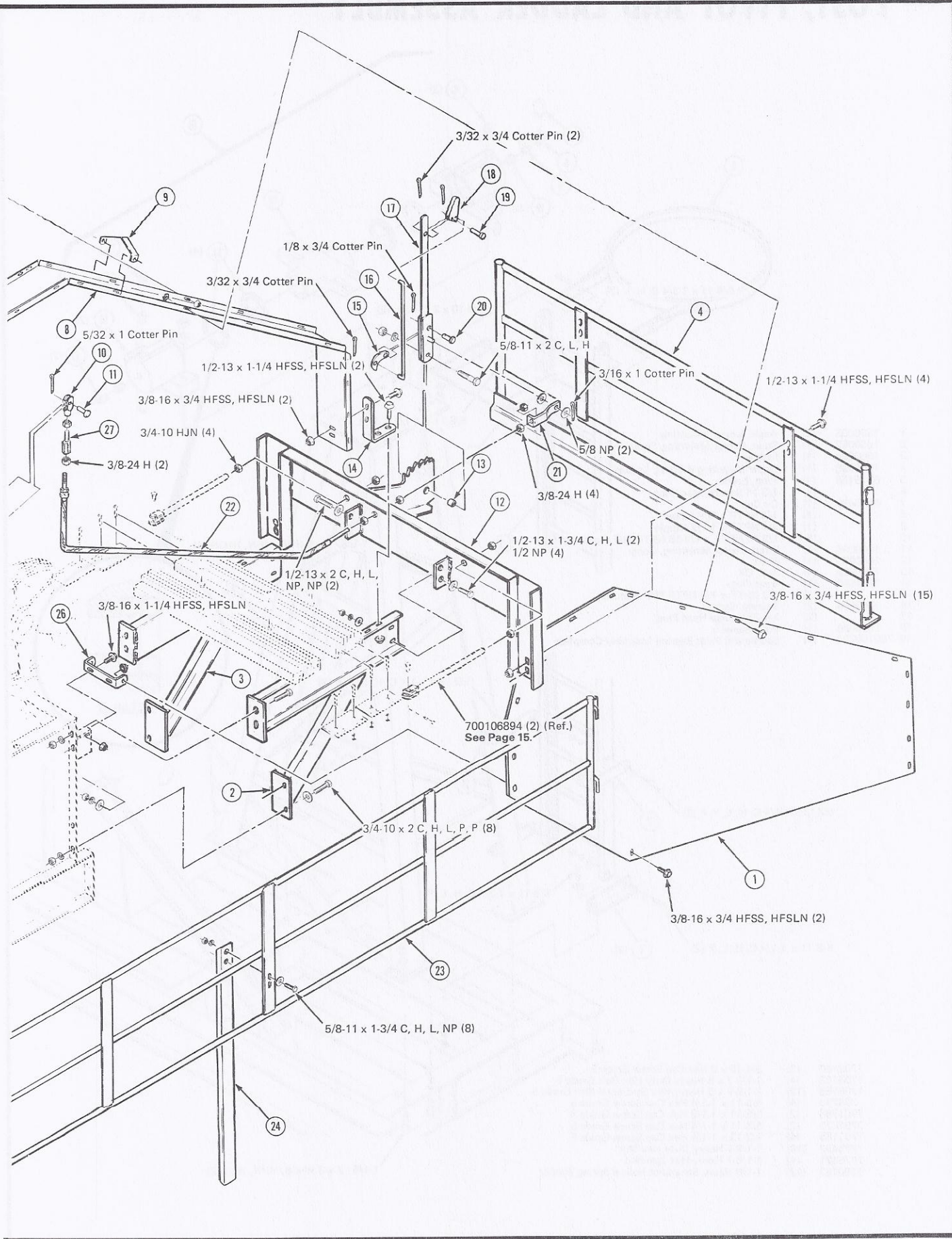
- | | | | |
|-----------|-----------|--|--------------------------|
| 1 | 700100730 | (1) | Frame - Bracket Quadrant |
| 2 | 700100837 | (1) | Frame - Left, Motor |
| 3 | 700100836 | (1) | Frame - Right, Motor |
| 4 | 700102581 | (1) | Support - Shield |
| | | | |
| 700700883 | (6) | 1-8 x 3 Heavy Duty Structural Bolt Grade 5 | |
| 7702160 | (4) | 3/4-10 x 2-1/4 Hex Cap Screw Grade 5 | |
| 7701675 | (2) | 1/2-13 x 1-3/4 Hex Cap Screw Grade 5 | |
| 703983 | (2) | 1/2-13 x 1-3/4 Hex Cap Screw Grade 5 | |
| 7771363 | (7) | 1/2-13 x 1-1/4 Hex Flange Serrated Screw Grade 5 | |
| 705624 | (8) | 1/2 Narrow Plain Washer | |
| 7775547 | (6) | 1-8 Heavy Duty Hex Nut | |
| 700702010 | (6) | 1 Heavy Duty Helical Spring Lock Washer | |

SHIELDS AND GUARDRAIL ASSEMBLY - NARROW BASE, HIGH — PRIME

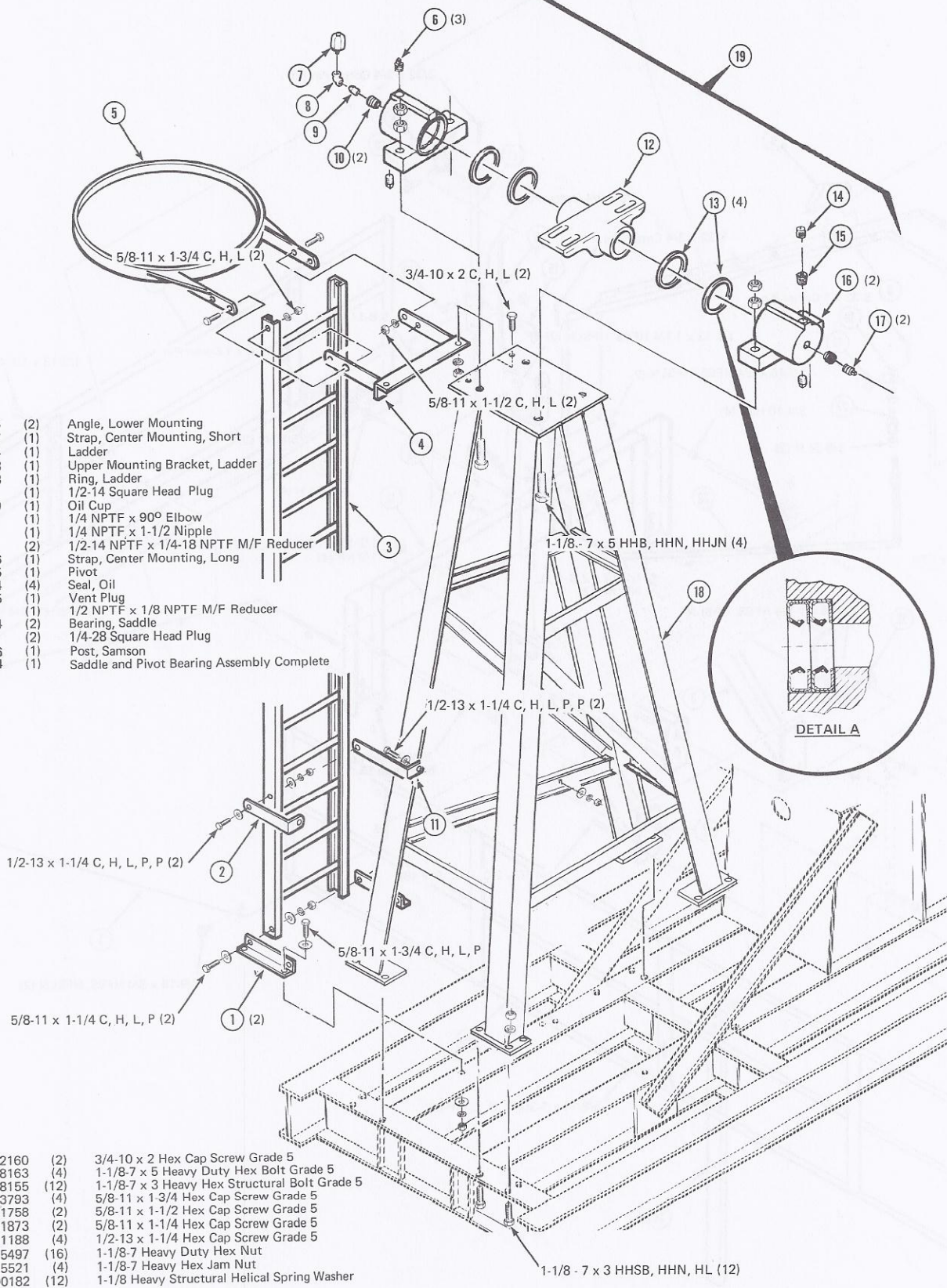
- | | | | |
|----|-----------|-----|--------------------------------|
| 1 | 1660337 | (1) | Shield - Left |
| 2 | 700107111 | (1) | Frame - Left, Motor |
| 3 | 700107112 | (1) | Frame - Right, Motor |
| 4 | 700100593 | (2) | Guardrail - End |
| 5 | 1660336 | (1) | Shield - Right |
| 6 | 1660153 | (1) | Support - Shield |
| 7 | 2400556 | (1) | Shield - Adjustment |
| 8 | 1660338 | (1) | Shield - Cap |
| 9 | 1660157 | (1) | Support - Shield |
| 10 | 766691 | (1) | Clevis |
| 11 | 063685 | (1) | 1/2 x 1-1/2 Clevis Pin |
| 12 | 700100843 | (1) | Frame - Bracket Quadrant |
| 13 | 6341184 | (1) | Bushing, 5/8 I.D. x 9/16" Long |
| 14 | 1660335 | (1) | Support |
| 15 | 1660406 | (1) | Pawl |
| 16 | 1660414 | (1) | Rod |
| 17 | 1660364 | (1) | Handle - Brake |
| 18 | 1660422 | (1) | Lever |
| 19 | 762617 | (1) | 1/4 x 7/8 Clevis Pin |
| 20 | 063602 | (1) | 3/8 x 1-1/2 Clevis Pin |
| 21 | 700100584 | (1) | Link - Strap |
| 22 | 700700884 | (1) | Cable - Brake, 115" Long |
| 23 | 1660090 | (2) | Guardrail - Side |
| 24 | 1660348 | (2) | Post - Guardrail, Side |
| 25 | 1660339 | (1) | Angle |
| 26 | 1660484 | (1) | Support |
| 27 | 700100607 | (1) | Extension - Brake Cable |
| 28 | 1660089 | (4) | Support - Guardrail |
| 29 | 700107114 | (1) | Support - Shield |



- | | | |
|-----------|------|--|
| 703793 | (16) | 5/8-11 x 1-3/4 Hex Cap Screw Grade 5 |
| 7701675 | (2) | 1/2-13 x 2 Hex Cap Screw Grade 5 |
| 700700883 | (12) | 1-8 x 3 Heavy Duty Hex Structural Bolt Grade 5 |
| 1713114 | (9) | 1-1/4-7 x 6 Heavy Duty Hex Structural Bolt Grade 5 |
| 7702160 | (8) | 3/4-10 x 2 Hex Cap Screw Grade 5 |
| 7701949 | (7) | 5/8-11 x 2 Hex Cap Screw Grade 5 |
| 703983 | (4) | 1/2-13 x 1-3/4 Hex Cap Screw Grade 5 |
| 7771363 | (7) | 1/2-13 x 1-1/4 Hex Flange Serrated Screw Grade 5 |
| 7703432 | (47) | 3/8-16 x 3/4 Hex Flange Serrated Screw Grade 5 |
| 7775505 | (2) | 1-1/4 - 7 Heavy Duty Hex Jam Nut |
| 7775513 | (9) | 1 1/4 - 7 Heavy Duty Hex Nut |
| 1707728 | (9) | 1-1/4 Heavy Duty Helical Spring Lock Washer |
| 7775604 | (4) | 3/4-10 Heavy Duty Jam Nut |
| 705632 | (4) | 5/8 Narrow Plain Washer |
| 705624 | (8) | 1/2 Narrow Plain Washer |



POST, PIVOT AND LADDER ASSEMBLY

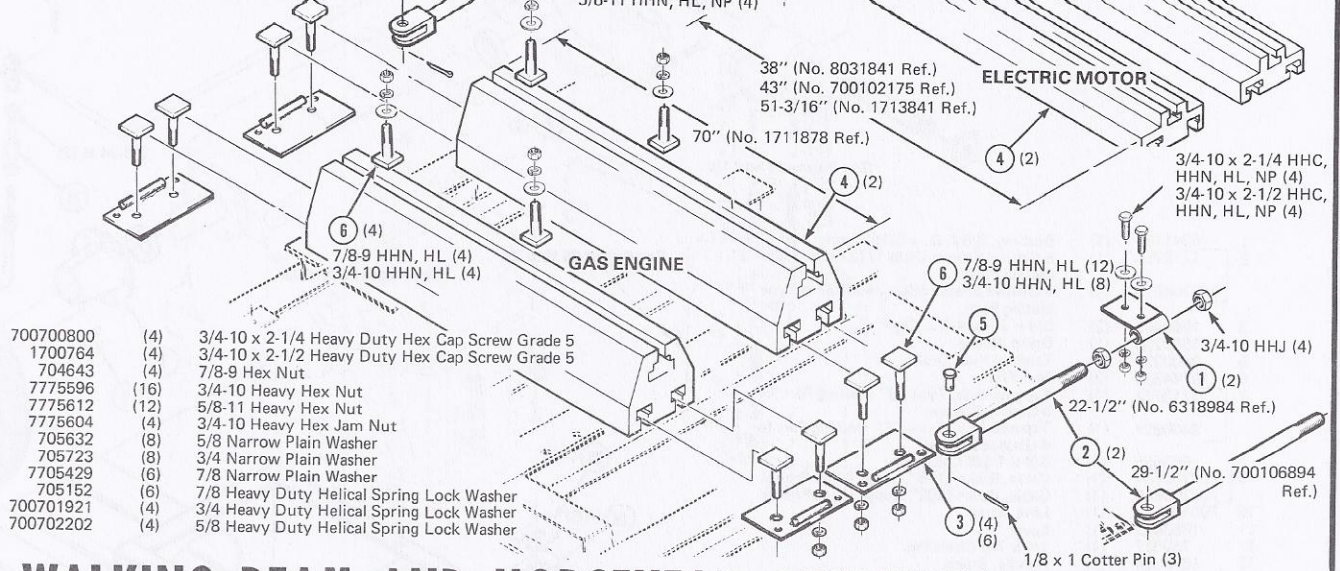


- | | | | |
|----|-----------|-----|--|
| 1 | 1660095 | (2) | Angle, Lower Mounting |
| 2 | 1660097 | (1) | Strap, Center Mounting, Short |
| 3 | 1660094 | (1) | Ladder |
| 4 | 1660098 | (1) | Upper Mounting Bracket, Ladder |
| 5 | 6318158 | (1) | Ring, Ladder |
| 6 | | (1) | 1/2-14 Square Head Plug |
| 7 | 8845489 | (1) | Oil Cup |
| 8 | | (1) | 1/4 NPTF x 90° Elbow |
| 9 | | (1) | 1/4 NPTF x 1-1/2 Nipple |
| 10 | | (2) | 1/2-14 NPTF x 1/4-18 NPTF M/F Reducer |
| 11 | 1660096 | (1) | Strap, Center Mounting, Long |
| 12 | 1660085 | (1) | Pivot |
| 13 | 1704824 | (4) | Seal, Oil |
| 14 | 7751605 | (1) | Vent Plug |
| 15 | | (1) | 1/2 NPTF x 1/8 NPTF M/F Reducer |
| 16 | 1660084 | (2) | Bearing, Saddle |
| 17 | | (2) | 1/4-28 Square Head Plug |
| 18 | 1660066 | (1) | Post, Samson |
| 19 | 700100204 | (1) | Saddle and Pivot Bearing Assembly Complete |

- | | | |
|---------|------|---|
| 7702160 | (2) | 3/4-10 x 2 Hex Cap Screw Grade 5 |
| 1708163 | (4) | 1-1/8-7 x 5 Heavy Duty Hex Bolt Grade 5 |
| 1708155 | (12) | 1-1/8-7 x 3 Heavy Hex Structural Bolt Grade 5 |
| 703793 | (4) | 5/8-11 x 1 3/4 Hex Cap Screw Grade 5 |
| 7701758 | (2) | 5/8-11 x 1-1/2 Hex Cap Screw Grade 5 |
| 7701873 | (2) | 5/8-11 x 1-1/4 Hex Cap Screw Grade 5 |
| 7701188 | (4) | 1/2-13 x 1-1/4 Hex Cap Screw Grade 5 |
| 7775497 | (16) | 1-1/8-7 Heavy Duty Hex Nut |
| 7775521 | (4) | 1-1/8-7 Heavy Hex Jam Nut |
| 2700182 | (12) | 1-1/8 Heavy Structural Helical Spring Washer |

ENGINE AND MOTOR MOUNTING ASSEMBLY

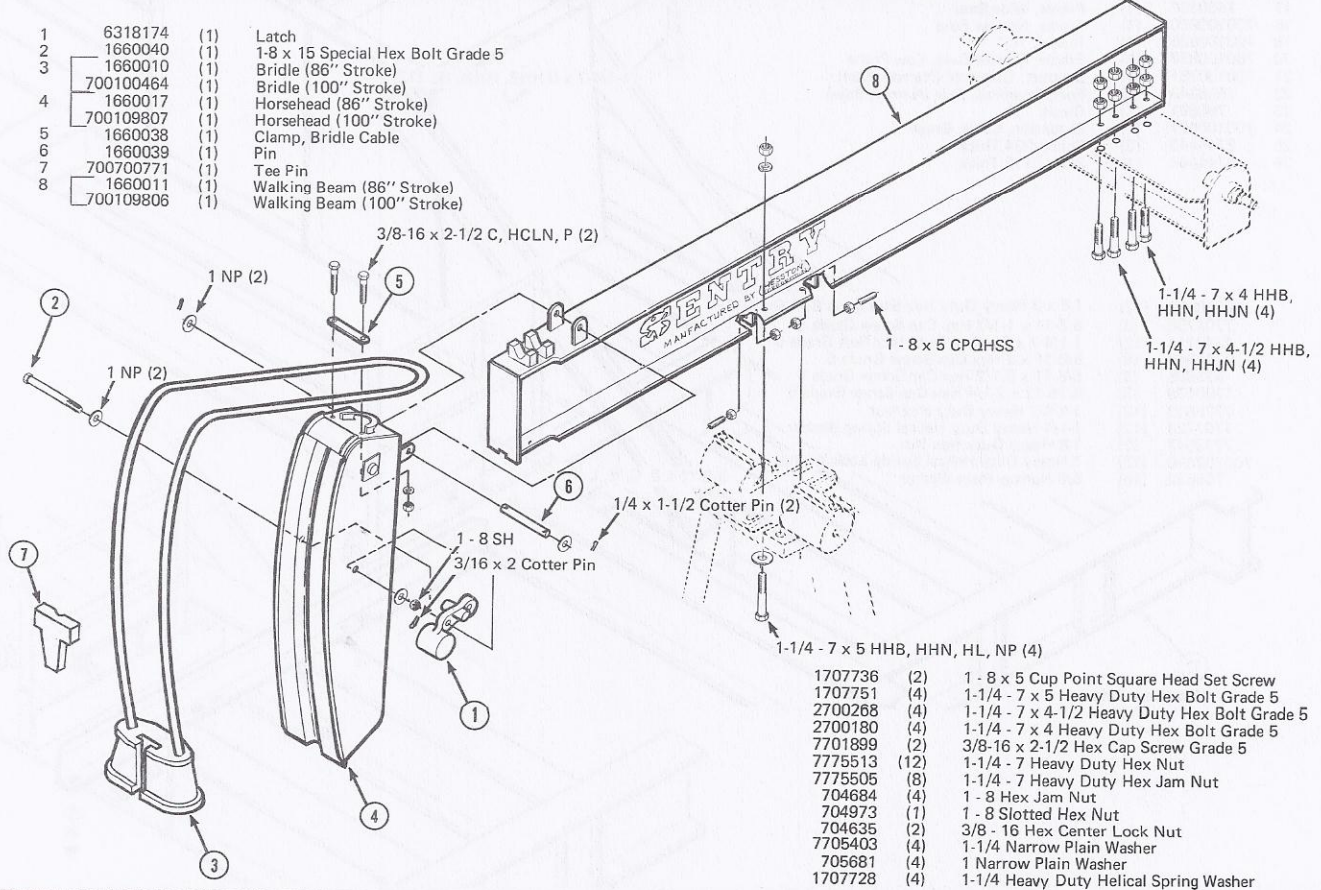
- | | | | |
|---|-----------|------|--|
| 1 | 6319115 | (2) | Plate, Tightener |
| 2 | 6318984 | (2) | Rod Adjusting, 22-1/2" Long (Low Prime) |
| | 700106894 | (2) | Rod Adjusting, 29-1/2" Long (High Prime) |
| 3 | 700100600 | (6) | Plate, Clamp (Gas Engine) |
| | 700100310 | (4) | Plate, Clamp (Electric Motor) |
| 4 | 1711878 | (2) | Rail Mounting (Gas Engine) |
| | 8031841 | (2) | Rail Mounting, 38" Long (Electric Motor) |
| | 700102175 | (2) | Rail Mounting, 43" Long (Electric Motor) |
| | 1713841 | (2) | Rail Mounting, 57-1/4" Long (Electric Motor) |
| 5 | 863753 | (2) | 5/8 x 1-3/4 Clevis Pin |
| 6 | 700100318 | (4) | 7/8-9 x 4 "T" Bolt Grade 8 (Extra large engines) |
| | 700702799 | (16) | 3/4-10 x 3 "T" Bolt Grade 8 |
| 7 | 700702798 | (12) | 5/8-11 x 2-1/2 "T" Bolt Grade 8 |



- | | | |
|-----------|------|---|
| 700700800 | (4) | 3/4-10 x 2-1/4 Heavy Duty Hex Cap Screw Grade 5 |
| 1700764 | (4) | 3/4-10 x 2-1/2 Heavy Duty Hex Cap Screw Grade 5 |
| 704643 | (4) | 7/8-9 Hex Nut |
| 7775596 | (16) | 3/4-10 Heavy Hex Nut |
| 7775612 | (12) | 5/8-11 Heavy Hex Nut |
| 7775604 | (4) | 3/4-10 Heavy Hex Jam Nut |
| 705632 | (8) | 5/8 Narrow Plain Washer |
| 705723 | (8) | 3/4 Narrow Plain Washer |
| 7705429 | (6) | 7/8 Narrow Plain Washer |
| 705152 | (6) | 7/8 Heavy Duty Helical Spring Lock Washer |
| 700701921 | (4) | 3/4 Heavy Duty Helical Spring Lock Washer |
| 700702202 | (4) | 5/8 Heavy Duty Helical Spring Lock Washer |

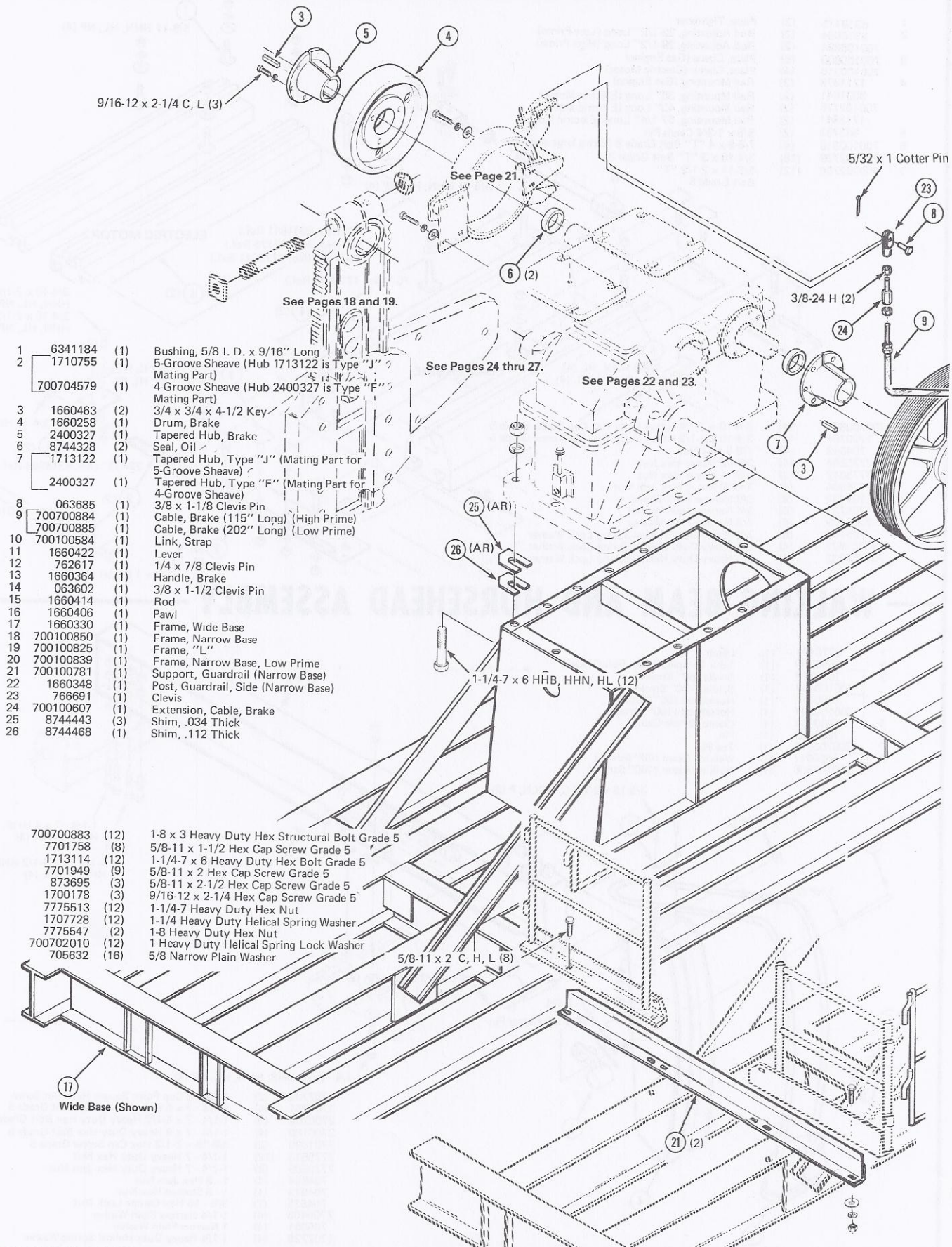
WALKING BEAM AND HORSEHEAD ASSEMBLY

- | | | | |
|---|-----------|-----|-----------------------------------|
| 1 | 6318174 | (1) | Latch |
| 2 | 1660040 | (1) | 1-8 x 15 Special Hex Bolt Grade 5 |
| 3 | 1660010 | (1) | Bridle (86" Stroke) |
| | 700100464 | (1) | Bridle (100" Stroke) |
| 4 | 1660017 | (1) | Horsehead (86" Stroke) |
| | 700109807 | (1) | Horsehead (100" Stroke) |
| 5 | 1660038 | (1) | Clamp, Bridle Cable |
| 6 | 1660039 | (1) | Pin |
| 7 | 700700771 | (1) | Tee Pin |
| 8 | 1660011 | (1) | Walking Beam (86" Stroke) |
| | 700109806 | (1) | Walking Beam (100" Stroke) |



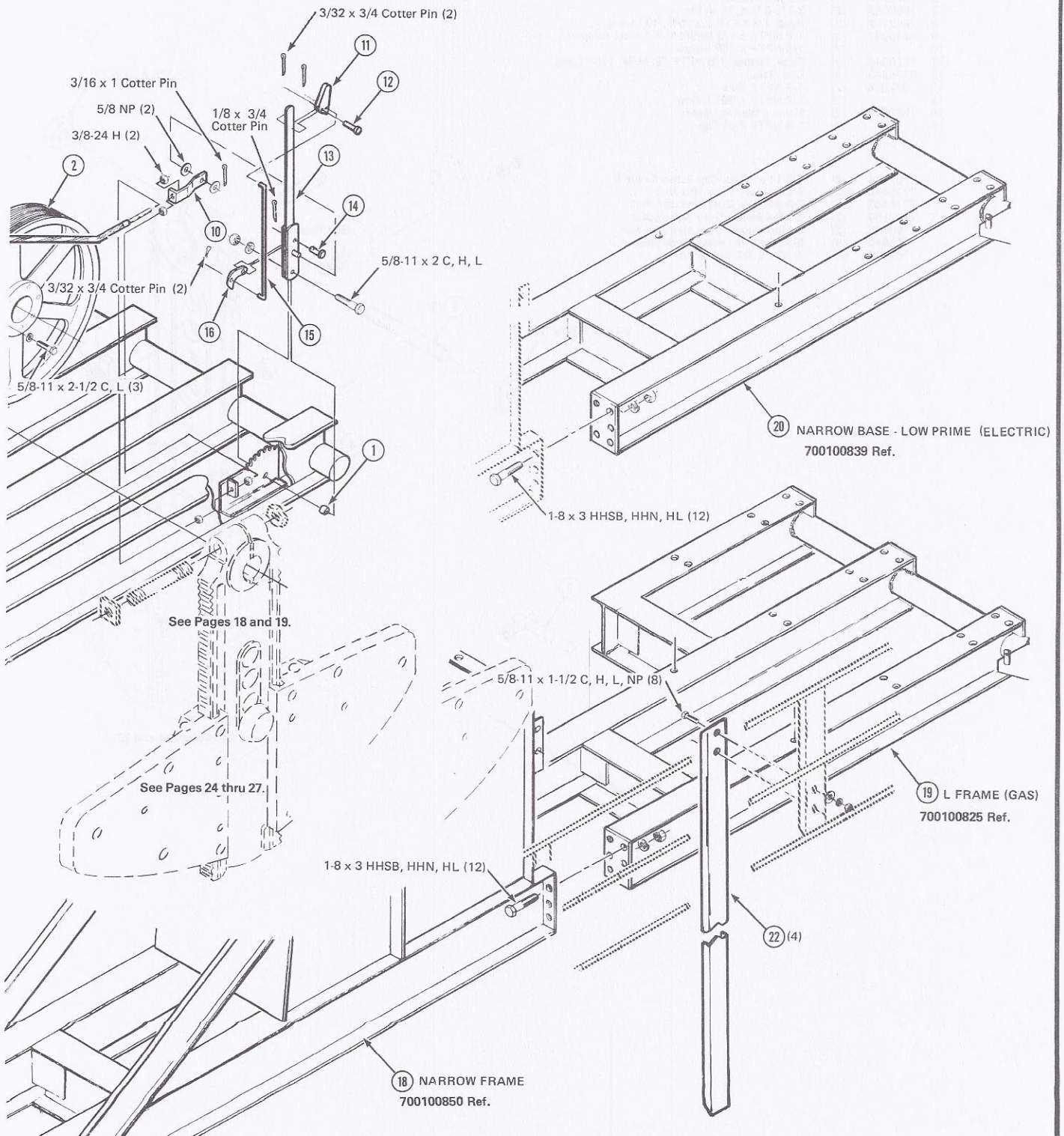
- | | | |
|---------|------|---|
| 1707736 | (2) | 1-8 x 5 Cup Point Square Head Set Screw |
| 1707751 | (4) | 1-1/4 - 7 x 5 Heavy Duty Hex Bolt Grade 5 |
| 2700268 | (4) | 1-1/4 - 7 x 4-1/2 Heavy Duty Hex Bolt Grade 5 |
| 2700180 | (4) | 1-1/4 - 7 x 4 Heavy Duty Hex Bolt Grade 5 |
| 7701899 | (2) | 3/8-16 x 2-1/2 Hex Cap Screw Grade 5 |
| 7775513 | (12) | 1-1/4 - 7 Heavy Duty Hex Nut |
| 7775505 | (8) | 1-1/4 - 7 Heavy Duty Hex Jam Nut |
| 704684 | (4) | 1-8 Hex Jam Nut |
| 704973 | (1) | 1-8 Slotted Hex Nut |
| 704635 | (2) | 3/8 - 16 Hex Center Lock Nut |
| 7705403 | (4) | 1-1/4 Narrow Plain Washer |
| 705681 | (4) | 1 Narrow Plain Washer |
| 1707728 | (4) | 1-1/4 Heavy Duty Helical Spring Washer |

BASE (MAINFRAME) AND BRAKE ASSEMBLY



- 1 6341184 (1) Bushing, 5/8 I. D. x 9/16" Long
- 2 1710755 (1) 5-Groove Sheave (Hub 1713122 is Type "J" Mating Part)
- 700704579 (1) 4-Groove Sheave (Hub 2400327 is Type "F" Mating Part)
- 3 1660463 (2) 3/4 x 3/4 x 4-1/2 Key
- 4 1660258 (1) Drum, Brake
- 5 2400327 (1) Tapered Hub, Brake
- 6 8744328 (2) Seal, Oil
- 7 1713122 (1) Tapered Hub, Type "J" (Mating Part for 5-Groove Sheave)
- 2400327 (1) Tapered Hub, Type "F" (Mating Part for 4-Groove Sheave)
- 8 063685 (1) 3/8 x 1-1/8 Clevis Pin
- 9 700700884 (1) Cable, Brake (115" Long) (High Prime)
- 700700885 (1) Cable, Brake (202" Long) (Low Prime)
- 10 700100584 (1) Link, Strap
- 11 1660422 (1) Lever
- 12 762617 (1) 1/4 x 7/8 Clevis Pin
- 13 1660364 (1) Handle, Brake
- 14 063602 (1) 3/8 x 1-1/2 Clevis Pin
- 15 1660414 (1) Rod
- 16 1660406 (1) Pawl
- 17 1660330 (1) Frame, Wide Base
- 18 700100850 (1) Frame, Narrow Base
- 19 700100825 (1) Frame, "L"
- 20 700100839 (1) Frame, Narrow Base, Low Prime
- 21 700100781 (1) Support, Guardrail (Narrow Base)
- 22 1660348 (1) Post, Guardrail, Side (Narrow Base)
- 23 766691 (1) Clevis
- 24 700100607 (1) Extension, Cable, Brake
- 25 8744443 (3) Shim, .034 Thick
- 26 8744468 (1) Shim, .112 Thick

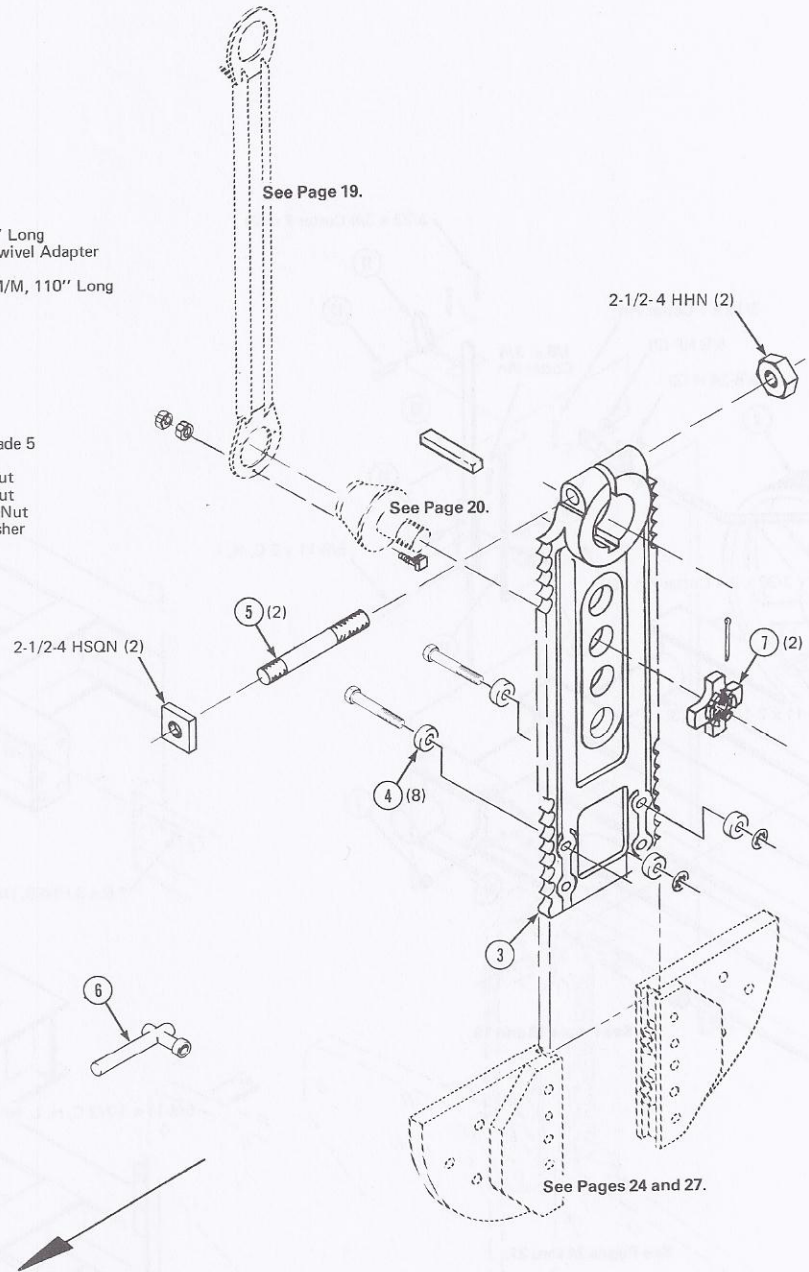
- 700700883 (12) 1-8 x 3 Heavy Duty Hex Structural Bolt Grade 5
- 7701758 (8) 5/8-11 x 1-1/2 Hex Cap Screw Grade 5
- 1713114 (12) 1-1/4-7 x 6 Heavy Duty Hex Bolt Grade 5
- 7701949 (9) 5/8-11 x 2 Hex Cap Screw Grade 5
- 873695 (3) 5/8-11 x 2-1/2 Hex Cap Screw Grade 5
- 1700178 (3) 9/16-12 x 2-1/4 Hex Cap Screw Grade 5
- 7775513 (12) 1-1/4-7 Heavy Duty Hex Nut
- 1707728 (12) 1-1/4 Heavy Duty Helical Spring Washer
- 7775547 (2) 1-8 Heavy Duty Hex Nut
- 700702010 (12) 1 Heavy Duty Helical Spring Lock Washer
- 705632 (16) 5/8 Narrow Plain Washer

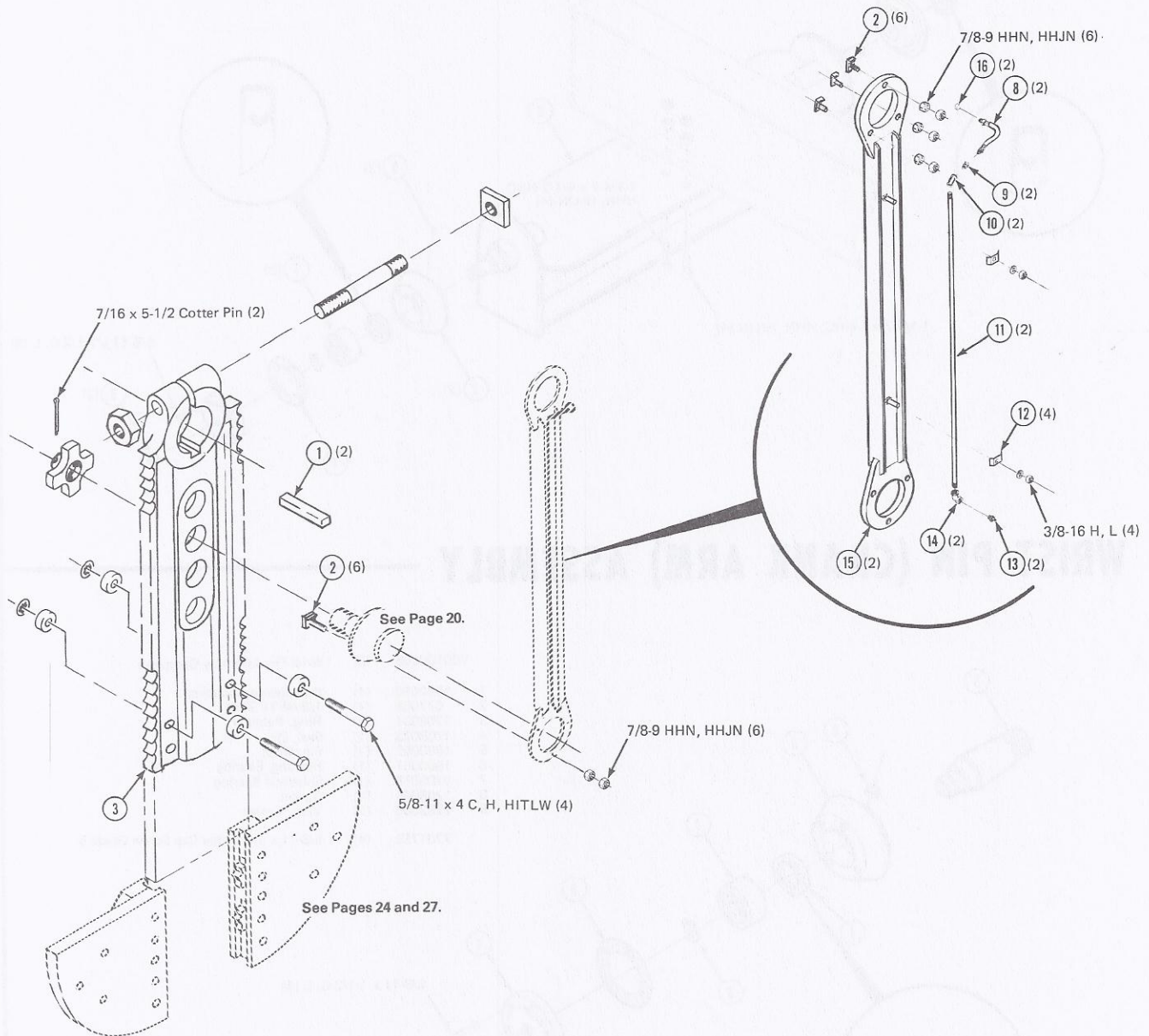


CRANK ARM AND PITMAN ASSEMBLY

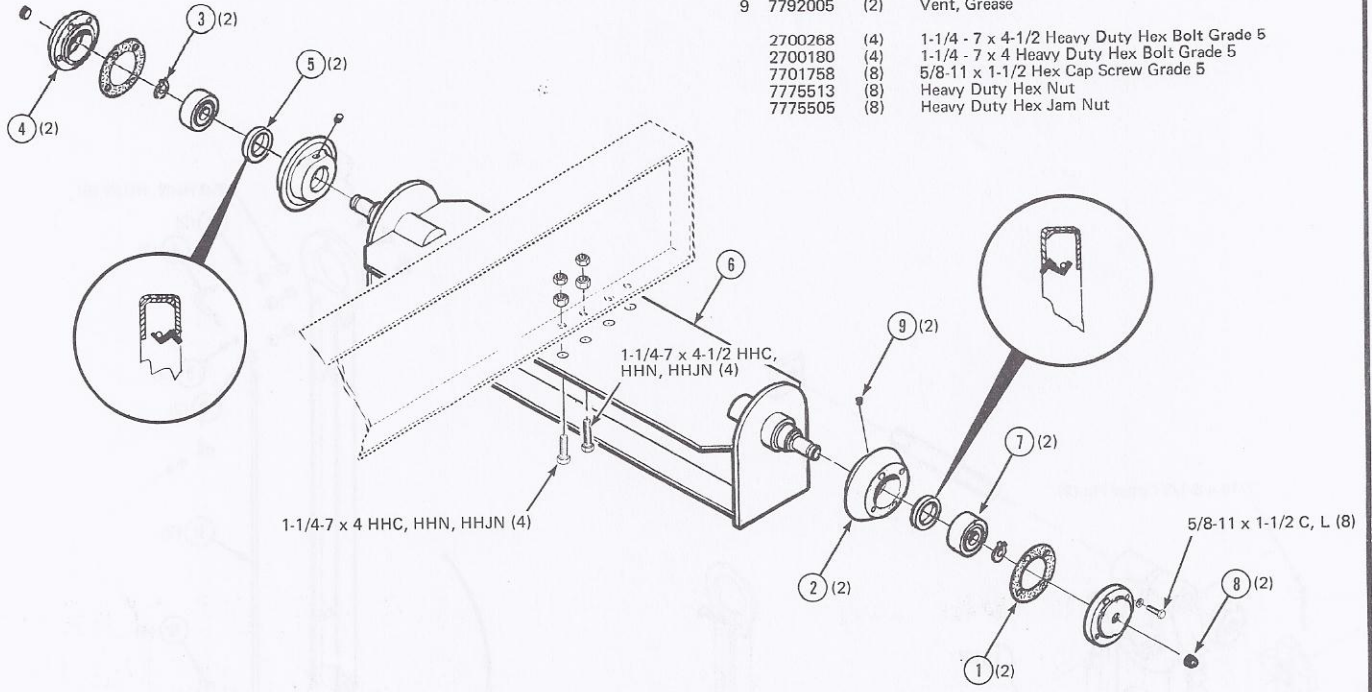
Ref. Part No.	Qty.	Description
1	(2)	1 x 1-1/2 x 7 Key, Tapered
2	(12)	7/8-19 Special Bolt
3	(2)	Arm, Crank
4	(8)	Tab, Lock
5	(2)	2-1/2-4 x 18 Bolt
6	(1)	Wrench, Socket
7	(2)	3-1/2-8 Nut, Wrist Pin
8	(2)	Hose, 1/8 NPTF (2) M/M, 19" Long
9	(2)	1/8 NPTF x 1/8 NPSM M/F Swivel Adapter
10	(2)	1/8 NPTF x 45° Elbow
11	(2)	Tube, Grease, 1/8 NPTF (2) M/M, 110" Long
12	(4)	Clip, Tube
13	(2)	1/8 NPTF Zerk
14	(2)	1/8 NPTF x 90° Elbow
15	(2)	Pitman, Walking Beam
16	(2)	1/8 NPTF Pipe Cap

702134	(4)	5/8-11 x 4 Hex Cap Screw Grade 5
7775448	(12)	7/8-9 Heavy Duty Hex Nut
7775463	(12)	7/8-9 Heavy Duty Hex Jam Nut
2700189	(2)	2-1/2-4 Heavy Duty Square Nut
2700188	(2)	2-1/2-4 Heavy Duty Hex Jam Nut
7705940	(4)	5/8 Heavy Internal Tooth Washer
762823	(2)	7/16 x 5-1/2 Cotter Pin



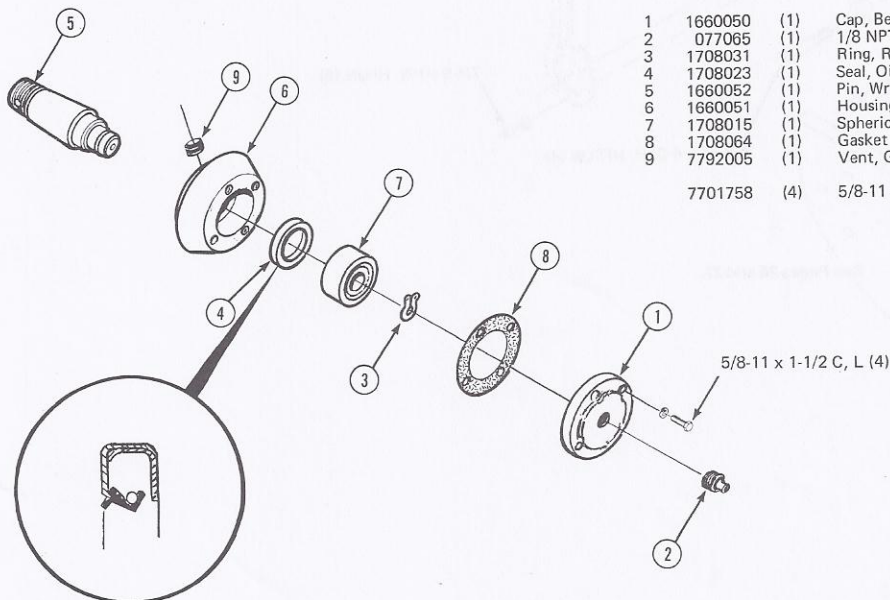


EQUALIZER (WALKING BEAM) ASSEMBLY



- | | | |
|---------|---------|---|
| 1660003 | (1) | Equalizer Beam Assembly Complete |
| 1 | 1708064 | (2) Gasket |
| 2 | 1660051 | (2) Housing, Bearing |
| 3 | 1708031 | (2) Ring, Retainer |
| 4 | 1660050 | (2) Cap, Bearing Housing |
| 5 | 1708023 | (2) Seal, Oil |
| 6 | 1660060 | (1) Beam, Equalizer |
| 7 | 1708015 | (2) Spherical Bearing |
| 8 | 077065 | (2) 1/8-2/ Zerk |
| 9 | 7792005 | (2) Vent, Grease |
| 2700268 | (4) | 1-1/4 - 7 x 4-1/2 Heavy Duty Hex Bolt Grade 5 |
| 2700180 | (4) | 1-1/4 - 7 x 4 Heavy Duty Hex Bolt Grade 5 |
| 7701758 | (8) | 5/8-11 x 1-1/2 Hex Cap Screw Grade 5 |
| 7775513 | (8) | Heavy Duty Hex Nut |
| 7775505 | (8) | Heavy Duty Hex Jam Nut |

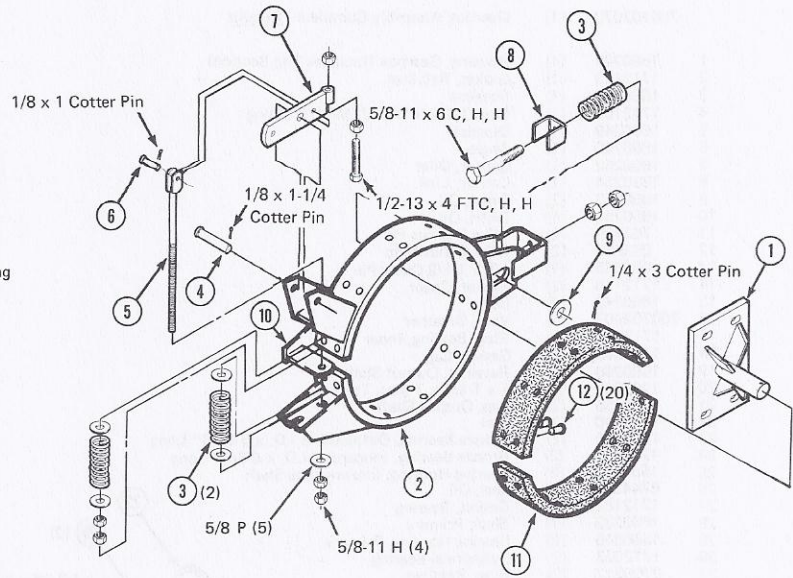
WRIST PIN (CRANK ARM) ASSEMBLY



- | | | |
|-----------|---------|--------------------------------------|
| 700100205 | (2) | Wrist Pin Assembly Complete |
| 1 | 1660050 | (1) Cap, Bearing Housing |
| 2 | 077065 | (1) 1/8 NPTF Zerk |
| 3 | 1708031 | (1) Ring, Retainer |
| 4 | 1708023 | (1) Seal, Oil |
| 5 | 1660052 | (1) Pin, Wrist |
| 6 | 1660051 | (1) Housing, Bearing |
| 7 | 1708015 | (1) Spherical Bearing |
| 8 | 1708064 | (1) Gasket |
| 9 | 7792005 | (1) Vent, Grease |
| 7701758 | (4) | 5/8-11 x 1-1/2 Hex Cap Screw Grade 5 |

BRAKE ASSEMBLY

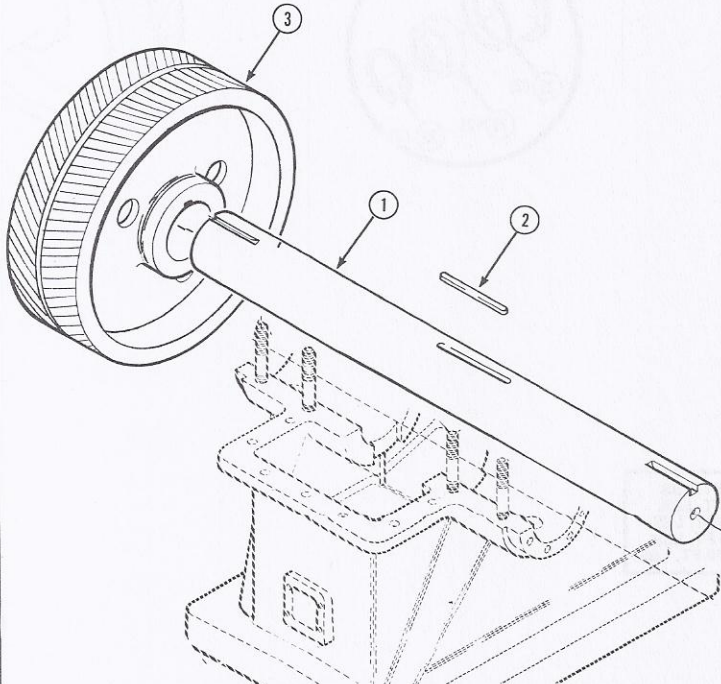
- | | | | |
|----|---------|------|---------------------------------------|
| 1 | 1660140 | (1) | Support, Pivot |
| 2 | 1660120 | (1) | Brake Band Assembly |
| 3 | 1712967 | (3) | Spring, Compression |
| 4 | 763383 | (1) | 3/4 x 3-3/4 Clevis Pin |
| 5 | 1660135 | (1) | Drawbolt, 5/8-11 x 10" Thread |
| 6 | 063685 | (1) | 1/2 x 1-1/2 Clevis Pin |
| 7 | 1660138 | (1) | Lever |
| 8 | 1660146 | (1) | Stop |
| 9 | 740407 | (1) | 2 I.D. x 3/16 Gauge Machinery Bushing |
| 10 | 1660131 | (1) | Support |
| 11 | 1660121 | (2) | Lining, Brake |
| 12 | 1712942 | (20) | Rivet, 1/4 x 5/8 Brake Shoe |



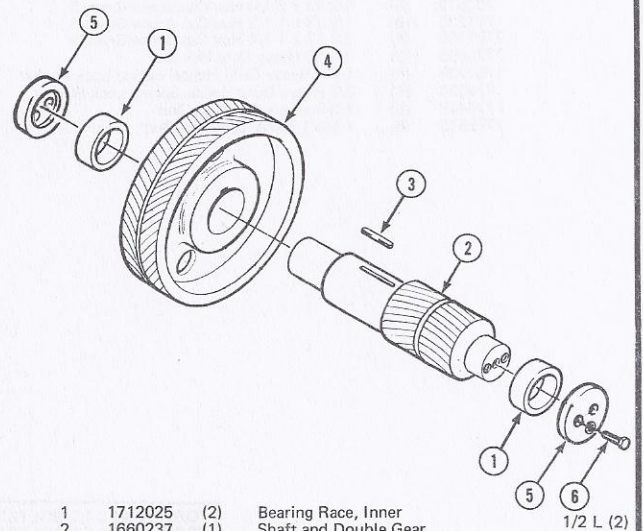
- | | | |
|---------|-----|--|
| 7771017 | (1) | 5/8-11 x 6 Hex Cap Screw Grade 5 |
| 873455 | (1) | 1/2-13 x 4 Full Thread Hex Cap Screw Grade 5 |

BULLGEAR (DRIVEN) SHAFT ASSEMBLY

- | | | | |
|---|---------|-----|-------------------------|
| 1 | 1660241 | (1) | Shaft, Bullgear, Driven |
| 2 | 1711969 | (1) | 1 x 1-1/2 x 9-5/8" Key |
| 3 | 1660239 | (1) | Double Bullgear, Driven |



INTERMEDIATE GEAR AND SHAFT ASSEMBLY

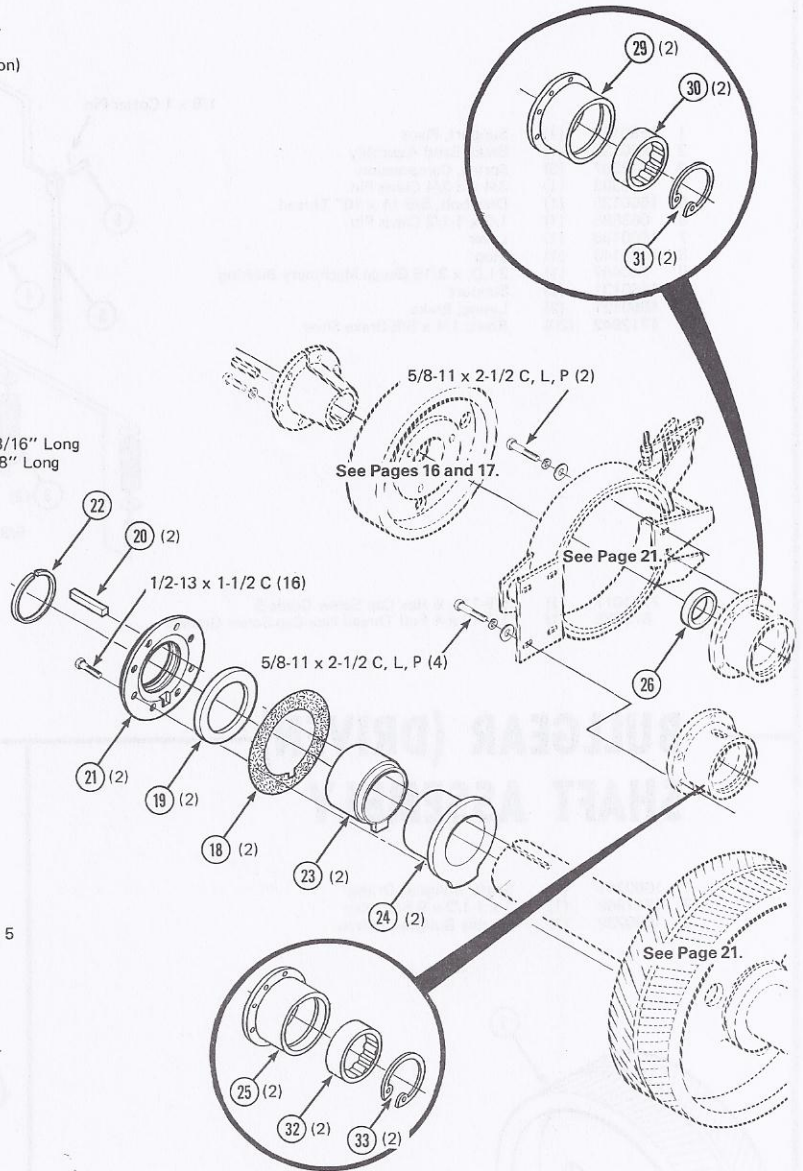


- | | | | |
|---|-----------|-----|---|
| 1 | 1712025 | (2) | Bearing Race, Inner |
| 2 | 1660237 | (1) | Shaft and Double Gear |
| 3 | 1711977 | (1) | 3/4 x 1 x 3-3/4 Key |
| 4 | 1660236 | (1) | Gear, Double |
| 5 | 700100254 | (2) | Cap, Shaft |
| 6 | 700100264 | (4) | 1/2-13 x 1-1/2 Hex Cap Screw, Special
(Shaft Caps were not installed on all Oil Pumps) |

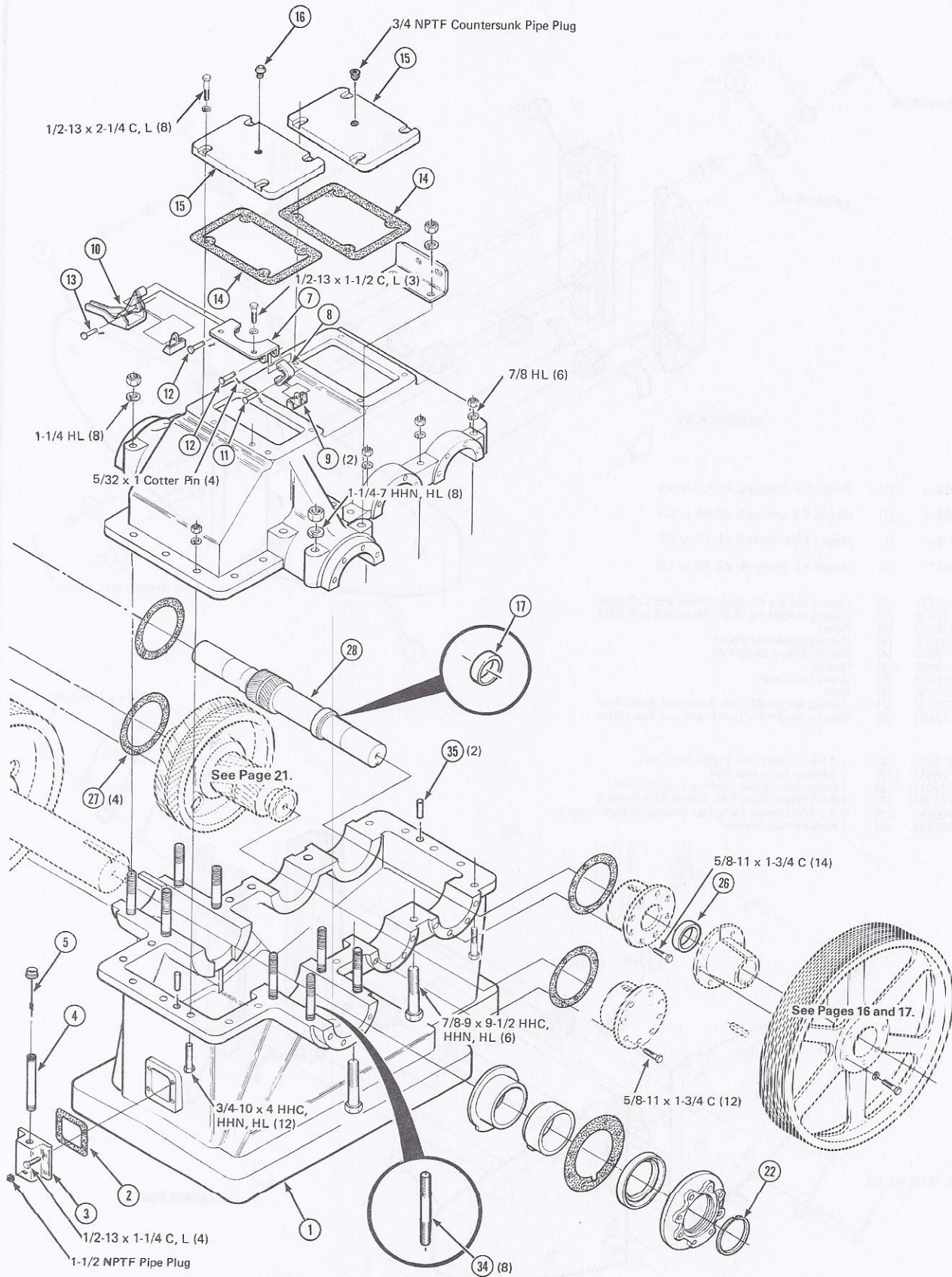
GEARBOX ASSEMBLY

1660228	(1)	Gearbox Assembly Complete
700107070	(1)	Gearbox Assembly Complete - <u>Rebuilt</u>
1	1660229	(1) Housing, Gearbox (Includes Top Section)
2	1712173	(1) Gasket, Retainer
3	1660242	(1) Retainer
4	1712165	(1) Pipe, 1-1/2 NPTF (2) M/M, 8" Long
5	1660249	(1) Dipstick
6	1660260	(1) Angle
7	1660252	(1) Carrier, Oiler
8	1660254	(1) Carrier, Link
9	1660253	(2) Distri, Oil
10	1660251	(1) Distri, Oil
11	763730	(1) 1/2 x 2 Clevis Pin
12	063883	(2) 1/2 x 3 Clevis Pin
13	063685	(1) 1/2 x 1-1/2 Clevis Pin
14	1712116	(2) Gasket, Cover
15	1660243	(2) Cover
16	700702907	(1) Vent, Breather
17	1712017	(1) Ring, Bearing, Inner
18	1712363	(2) Gasket, Cap
19	1660256	(2) Retainer, Output Shaft
20	1708049	(2) 1 x 1-1/2 x 7 Key, Tapered
21	1660255	(2) Cap, Output Shaft
22	1712660	(2) Seal
23	1712686	(2) Bronze Bearing, Outboard, 6 I.D. x 6-3/16" Long
24	1712678	(2) Bronze Bearing, Inboard, 6 I.D. x 6-3/8" Long
25	1660248	(2) Bearing Housing, Intermediate Shaft
26	8744328	(2) Seal, Oil
27	1712181	(4) Gasket, Bearing
28	1660233	(1) Shaft Primary
29	1660246	(2) Bearing Housing, Primary
30	1712033	(2) Cylindrical Bearing
31	2700212	(2) Ring, Retainer
32	1712041	(2) Cylindrical Bearing
33	8052144	(2) Ring, Retainer
34	1660259	(8) 1-1/4-7 x 9-1/2 Stud
35	1712082	(2) Pin, Tapered

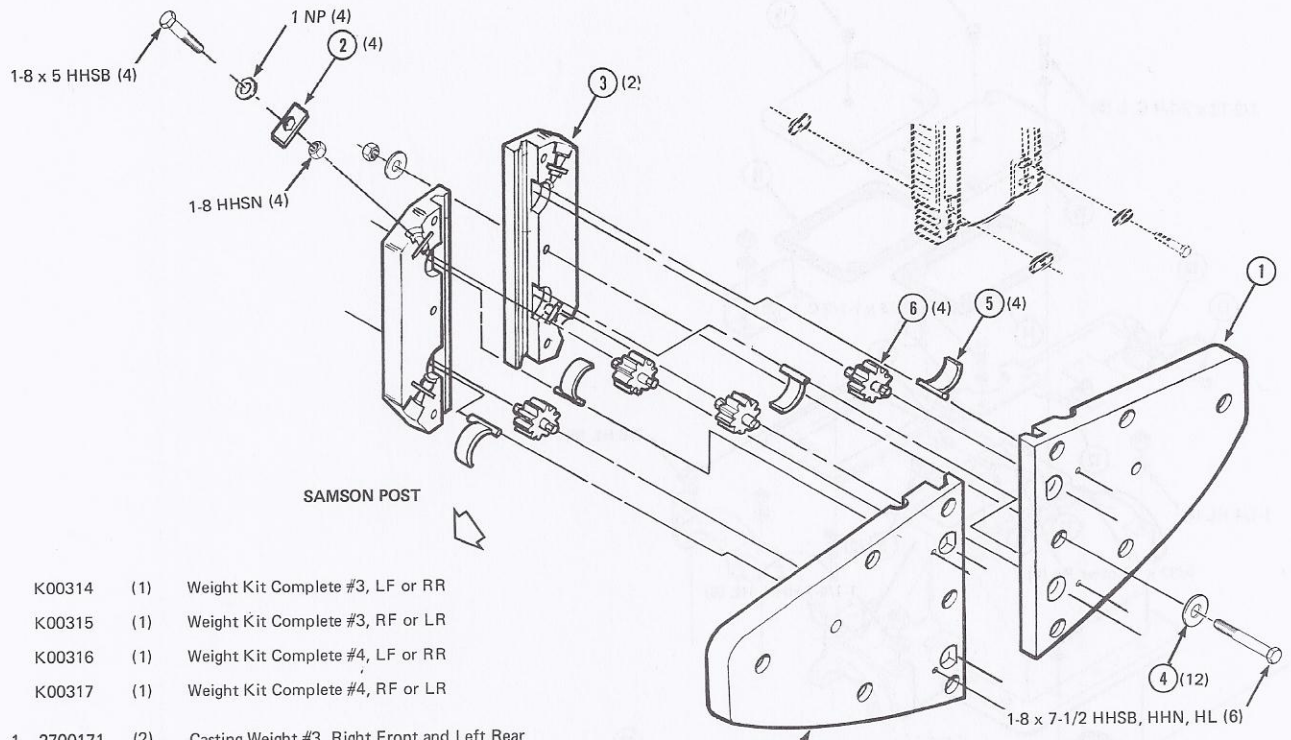
1712397	(6)	7/8-9 x 9-1/2 Heavy Duty Hex Bolt Grade 5
1712389	(12)	3/4-10 x 4 Heavy Duty Hex Cap Screw Grade 5
7701659	(4)	5/8-11 x 2-1/2 Hex Cap Screw Grade 5
703793	(26)	5/8-11 x 1-3/4 Hex Cap Screw Grade 5
703512	(8)	1/2-13 x 2-1/4 Hex Cap Screw Grade 5
701235	(18)	1/2-13 x 1-1/2 Hex Cap Screw Grade 5
7701188	(4)	1/2-13 x 1-1/4 Hex Cap Screw Grade 5
7775596	(12)	3/4-10 Heavy Duty Hex Nut
1707728	(8)	1-1/4 Heavy Duty Helical Spring Lock Washer
876524	(6)	7/8 Heavy Duty Helical Spring Lock Washer
7775448	(8)	7/8-9 Heavy Duty Hex Nut
7775513	(8)	1-1/4-7 Heavy Duty Hex Nut



TORQUE ALL 1/2 BOLTS TO 51 FT. LBS.
 TORQUE ALL 5/8 BOLTS TO 73 FT. LBS.
 TORQUE ALL 3/4 BOLTS TO 130 FT. LBS.
 TORQUE ALL 7/8 BOLTS TO 125 FT. LBS.
 TORQUE ALL 1-1/4 BOLTS TO 375 FT. LBS.



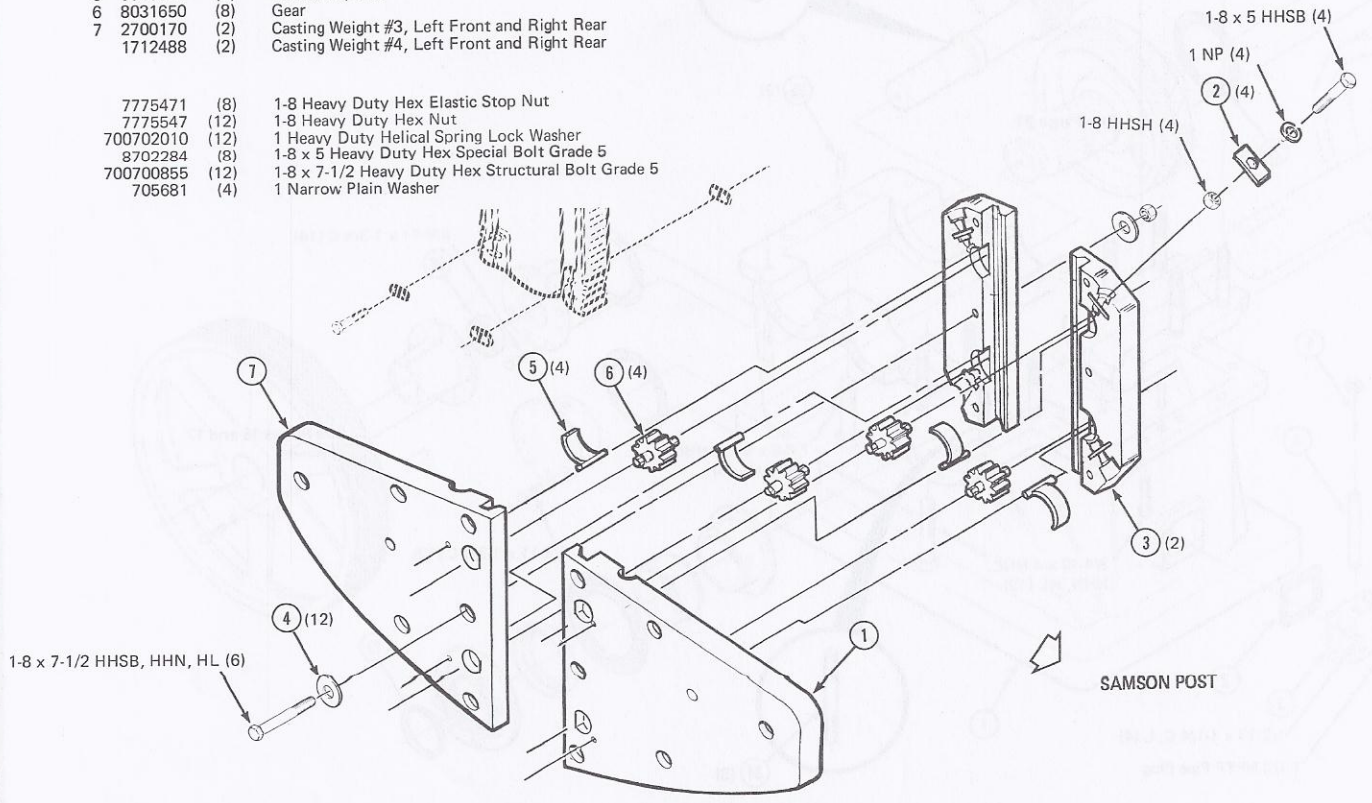
COUNTERBALANCE WEIGHT ASSEMBLIES (NO. 3 AND 4)



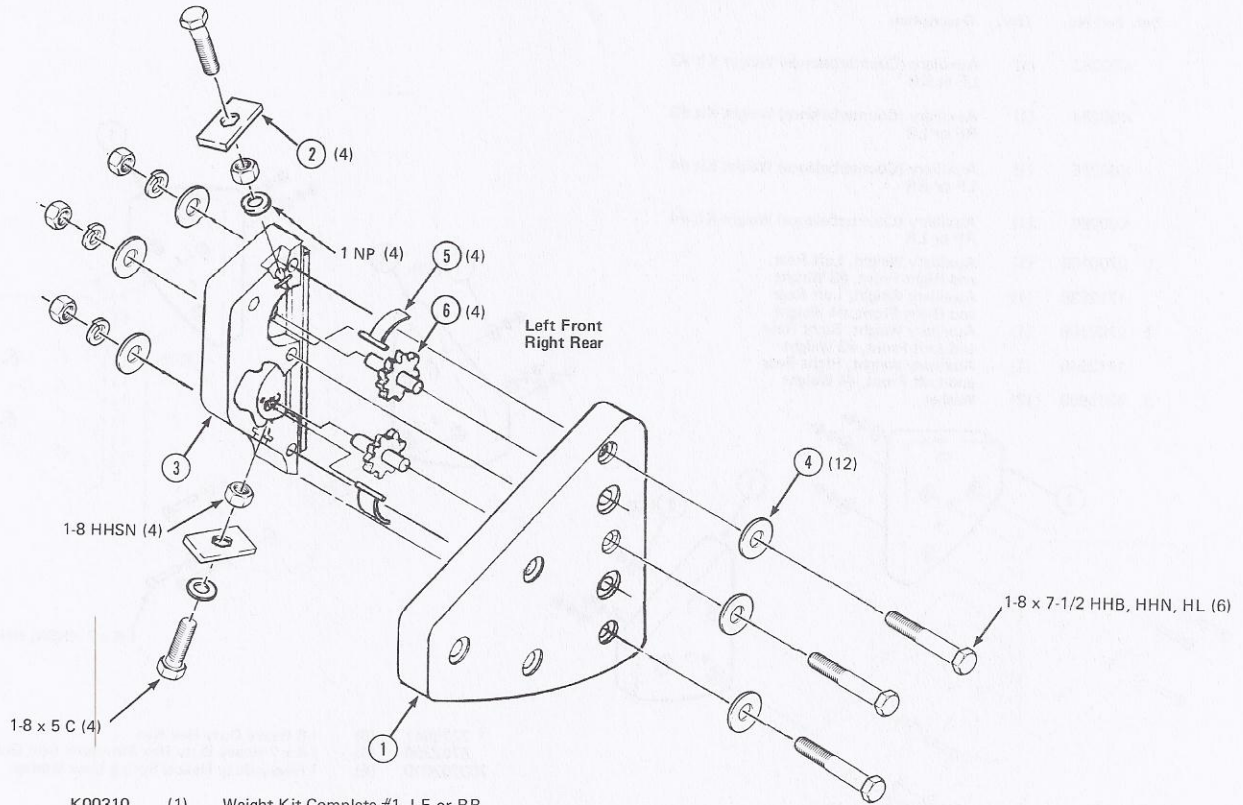
- K00314 (1) Weight Kit Complete #3, LF or RR
- K00315 (1) Weight Kit Complete #3, RF or LR
- K00316 (1) Weight Kit Complete #4, LF or RR
- K00317 (1) Weight Kit Complete #4, RF or LR

- 1 2700171 (2) Casting Weight #3, Right Front and Left Rear
- 1712470 (2) Casting Weight #4, Right Front and Left Rear
- 2 6316582 (4) Plate
- 3 2700172 (4) Casting Clamp Weight #3
- 1712520 (4) Casting Clamp Weight #4
- 4 6319859 (24) Washer
- 5 6316624 (8) Brake Pad, Gear
- 6 8031650 (8) Gear
- 7 2700170 (2) Casting Weight #3, Left Front and Right Rear
- 1712488 (2) Casting Weight #4, Left Front and Right Rear

- 7775471 (8) 1-8 Heavy Duty Hex Elastic Stop Nut
- 7775547 (12) 1-8 Heavy Duty Hex Nut
- 700702010 (12) 1 Heavy Duty Helical Spring Lock Washer
- 8702284 (8) 1-8 x 5 Heavy Duty Hex Special Bolt Grade 5
- 700700855 (12) 1-8 x 7-1/2 Heavy Duty Hex Structural Bolt Grade 5
- 705681 (4) 1 Narrow Plain Washer

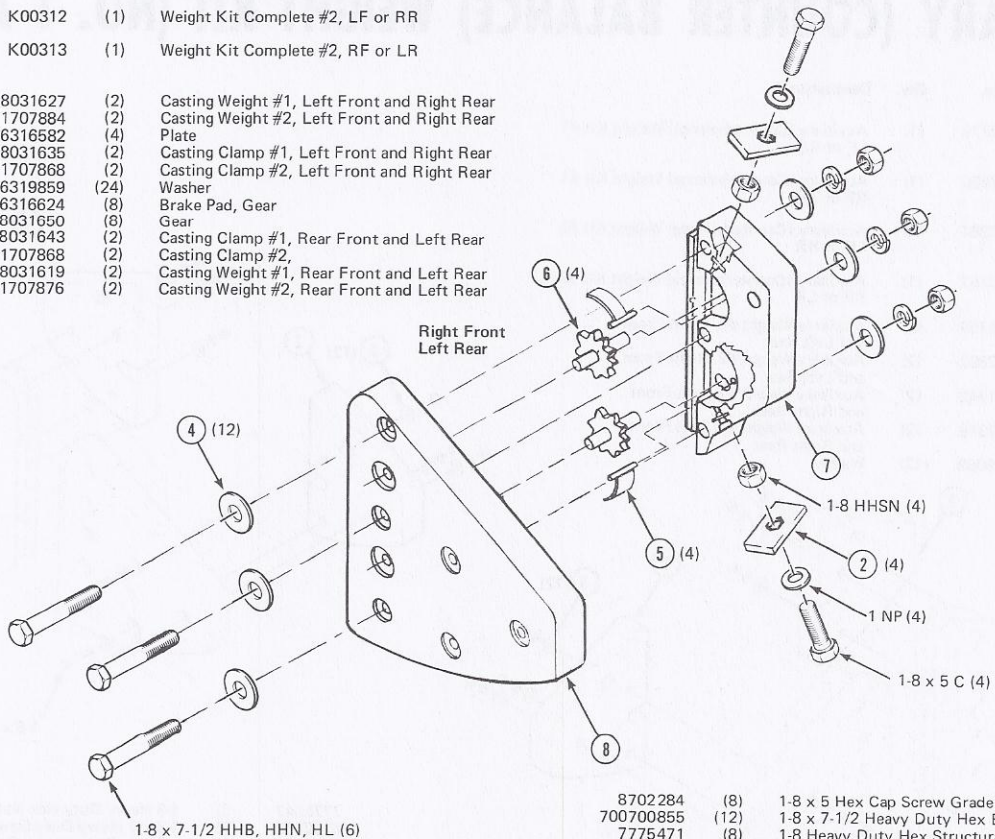


COUNTERBALANCE WEIGHT ASSEMBLIES (NO. 1 AND 2)



- K00310 (1) Weight Kit Complete #1, LF or RR
- K00311 (1) Weight Kit Complete #1, RF or LR
- K00312 (1) Weight Kit Complete #2, LF or RR
- K00313 (1) Weight Kit Complete #2, RF or LR

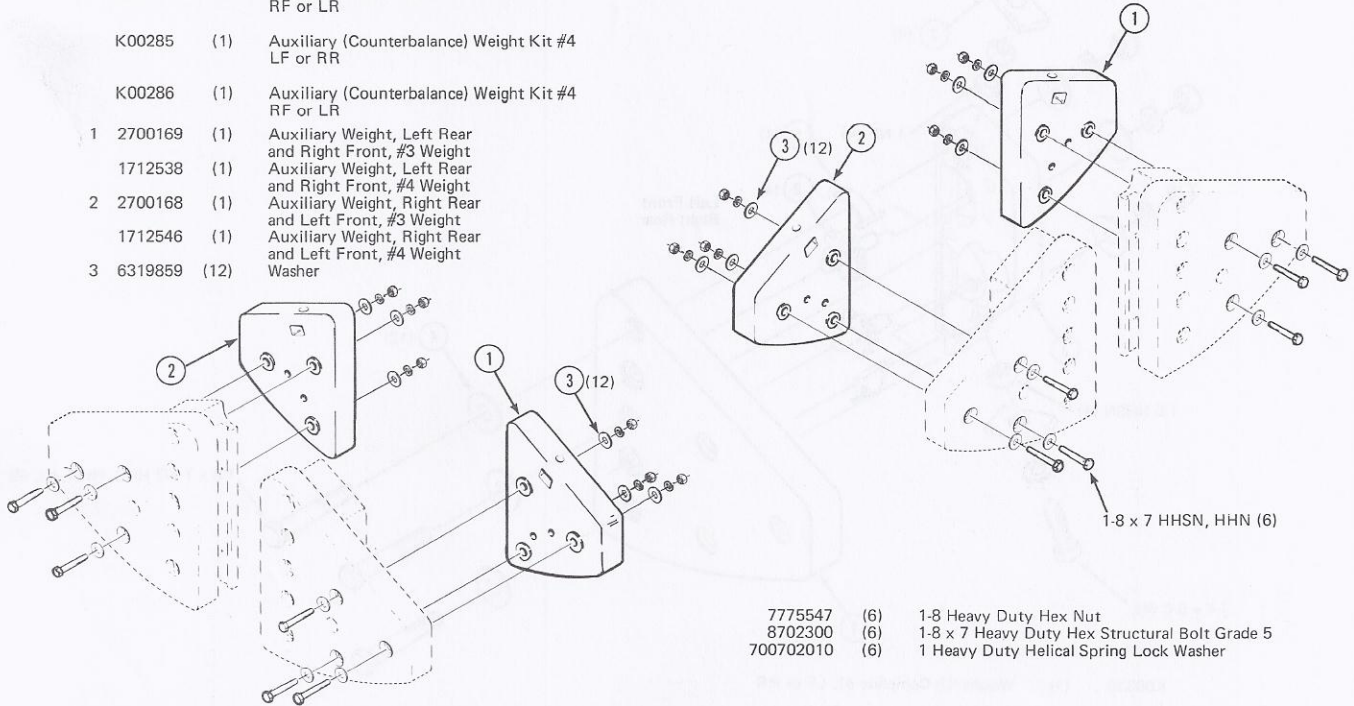
- 1 8031627 (2) Casting Weight #1, Left Front and Right Rear
- 1707884 (2) Casting Weight #2, Left Front and Right Rear
- 2 6316582 (4) Plate
- 3 8031635 (2) Casting Clamp #1, Left Front and Right Rear
- 1707868 (2) Casting Clamp #2, Left Front and Right Rear
- 4 6319859 (24) Washer
- 5 6316624 (8) Brake Pad, Gear
- 6 8031650 (8) Gear
- 7 8031643 (2) Casting Clamp #1, Rear Front and Left Rear
- 1707868 (2) Casting Clamp #2
- 8 8031619 (2) Casting Weight #1, Rear Front and Left Rear
- 1707876 (2) Casting Weight #2, Rear Front and Left Rear



- 8702284 (8) 1-8 x 5 Hex Cap Screw Grade 5 - Special
- 700700855 (12) 1-8 x 7-1/2 Heavy Duty Hex Bolt Grade 5
- 7775471 (8) 1-8 Heavy Duty Hex Structural Nut
- 7775547 (12) 1-8 Heavy Duty Hex Nut
- 700702010 (12) 1 Heavy Duty Helical Spring Lock Washer
- 705681 (4) 1 Narrow Plain Washer

AUXILIARY (COUNTERBALANCE) WEIGHT KIT (NO. 3 AND 4)

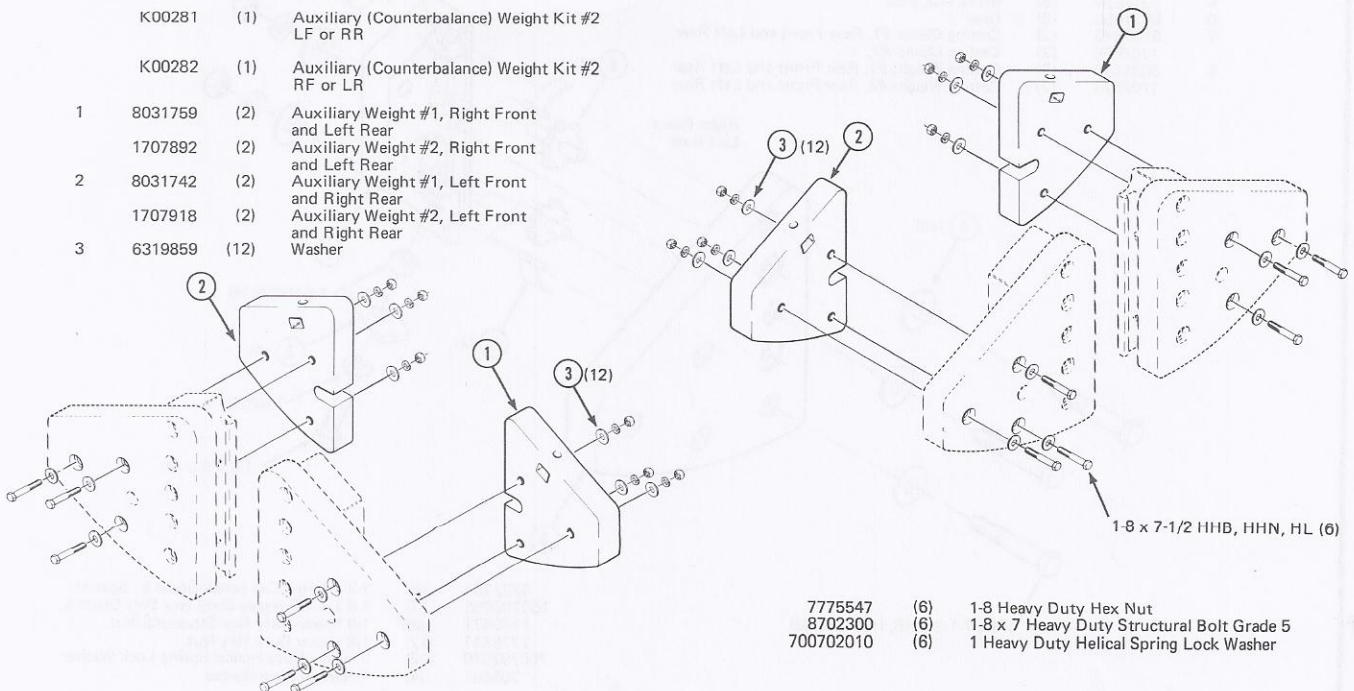
Ref. Part No.	Qty.	Description
K00283	(1)	Auxiliary (Counterbalance) Weight Kit #3 LF or RR
K00284	(1)	Auxiliary (Counterbalance) Weight Kit #3 RF or LR
K00285	(1)	Auxiliary (Counterbalance) Weight Kit #4 LF or RR
K00286	(1)	Auxiliary (Counterbalance) Weight Kit #4 RF or LR
1 2700169	(1)	Auxiliary Weight, Left Rear and Right Front, #3 Weight
1712538	(1)	Auxiliary Weight, Left Rear and Right Front, #4 Weight
2 2700168	(1)	Auxiliary Weight, Right Rear and Left Front, #3 Weight
1712546	(1)	Auxiliary Weight, Right Rear and Left Front, #4 Weight
3 6319859	(12)	Washer



- 7775547 (6) 1-8 Heavy Duty Hex Nut
- 8702300 (6) 1-8 x 7 Heavy Duty Hex Structural Bolt Grade 5
- 700702010 (6) 1 Heavy Duty Helical Spring Lock Washer

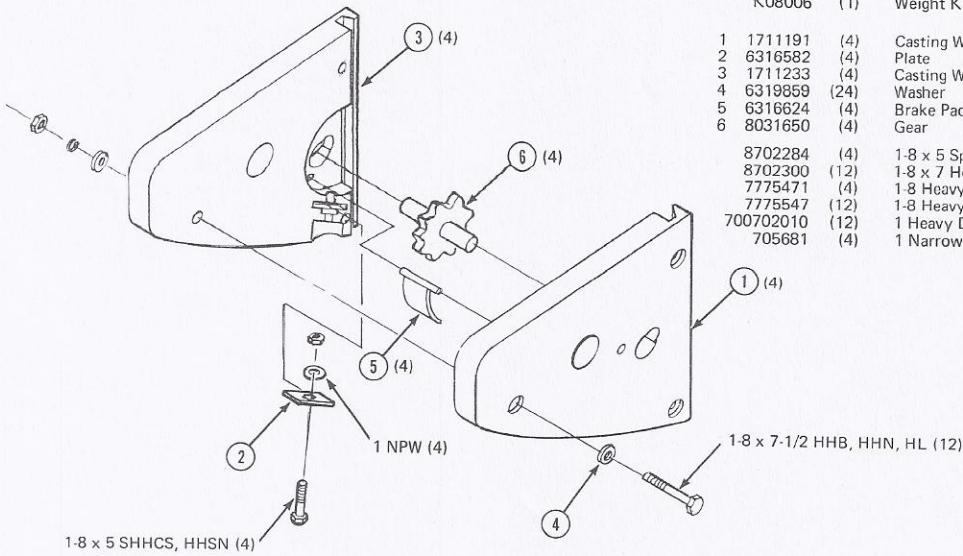
AUXILIARY (COUNTER BALANCE) WEIGHT KIT (NO. 1 AND 2)

Ref. Part No.	Qty.	Description
K00279	(1)	Auxiliary (Counterbalance) Weight Kit #1 LF or RR
K00280	(1)	Auxiliary (Counterbalance) Weight Kit #1 RF or LR
K00281	(1)	Auxiliary (Counterbalance) Weight Kit #2 LF or RR
K00282	(1)	Auxiliary (Counterbalance) Weight Kit #2 RF or LR
1 8031759	(2)	Auxiliary Weight #1, Right Front and Left Rear
1707892	(2)	Auxiliary Weight #2, Right Front and Left Rear
2 8031742	(2)	Auxiliary Weight #1, Left Front and Right Rear
1707918	(2)	Auxiliary Weight #2, Left Front and Right Rear
3 6319859	(12)	Washer



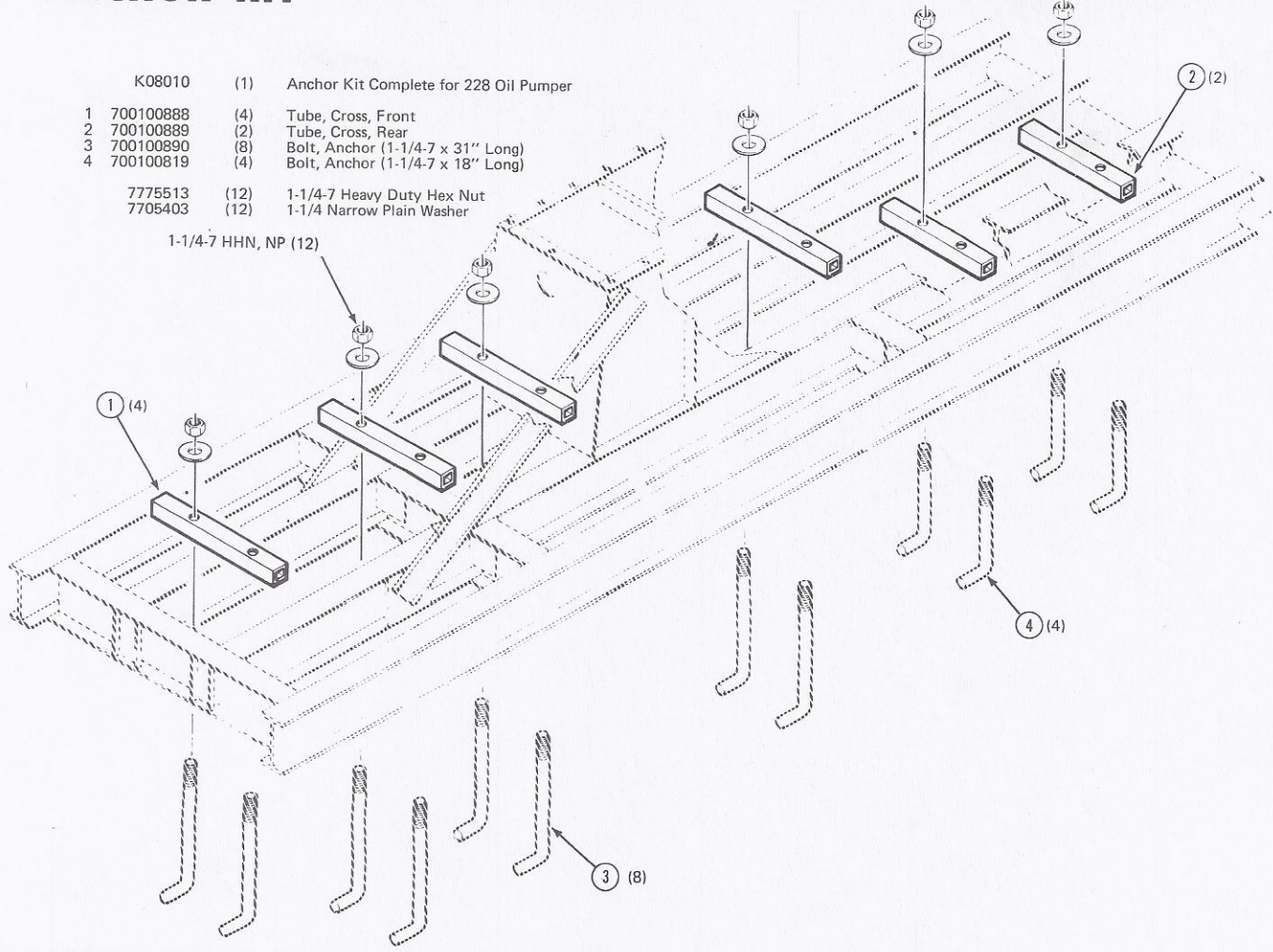
- 7775547 (6) 1-8 Heavy Duty Hex Nut
- 8702300 (6) 1-8 x 7 Heavy Duty Structural Bolt Grade 5
- 700702010 (6) 1 Heavy Duty Helical Spring Lock Washer

COUNTERBALANCE WEIGHT KIT (NO. 0)



- | | | |
|-----------|---------|--|
| K08006 | (1) | Weight Kit Complete #0 (Set of Two) |
| 1 | 1711191 | (4) Casting Weight #0, Left Front and Right Rear |
| 2 | 6316582 | (4) Plate |
| 3 | 1711233 | (4) Casting Weight #0, Right Front and Left Rear |
| 4 | 6319859 | (24) Washer |
| 5 | 6316624 | (4) Brake Pad, Gear |
| 6 | 8031650 | (4) Gear |
| 8702284 | (4) | 1-8 x 5 Special Heavy Hex Cap Screw Grade 5 |
| 8702300 | (12) | 1-8 x 7 Heavy Duty Hex Bolt Grade 5 |
| 7775471 | (4) | 1-8 Heavy Duty Hex Structural Nut |
| 7775547 | (12) | 1-8 Heavy Duty Hex Nut |
| 700702010 | (12) | 1 Heavy Duty Helical Spring Lock Washer |
| 705681 | (4) | 1 Narrow Plain Washer |

ANCHOR KIT



- | | | |
|---------|-----------|--|
| K08010 | (1) | Anchor Kit Complete for 228 Oil Pumper |
| 1 | 700100888 | (4) Tube, Cross, Front |
| 2 | 700100889 | (2) Tube, Cross, Rear |
| 3 | 700100890 | (8) Bolt, Anchor (1-1/4-7 x 31" Long) |
| 4 | 700100819 | (4) Bolt, Anchor (1-1/4-7 x 18" Long) |
| 7775513 | (12) | 1-1/4-7 Heavy Duty Hex Nut |
| 7705403 | (12) | 1-1/4 Narrow Plain Washer |